MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Motivator

Transportation is the underpinning of effective force deployment and sustainment in peace and in war.

In some positions as a Senior Transportation Officer, (once materiel is released by a supply activity for shipment), you will select a mode of transportation to ship the materiel.

Knowing how different modes of transportation are utilized by the U.S. Army will increase your capabilities to plan, coordinate, and synchronize the efficient and timely transport of goods and personnel.

As a Senior Transportation Officer, your knowledge of modes and the advantages and disadvantages of each will enhance your ability to effectively support Soldiers deployed and at home.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Lead-in

LEAD-IN

The Transportation Branch moves critical supplies rapidly under positive control, through an integrated, transportation-based global distribution system, bypassing routine warehouse/storage functions from the source to the combatant.

As a Senior Transportation Officer, you will interact with supply and commanders on both the strategic and tactical levels to plan and coordinate deliveries to the right place at the right time to support the geographic combatant commander.

The Transportation Branch moves critical supplies through an integrated transportation-based global distribution system.

As a Senior Transportation Officer in the Transportation Branch, you have the unique opportunity to work at any of the three levels of war; tactical, operational, and strategic.

On all levels, your knowledge of transportation modes will be critical in the performance of your duties.

MODE SELECTION

MODE SELECTION

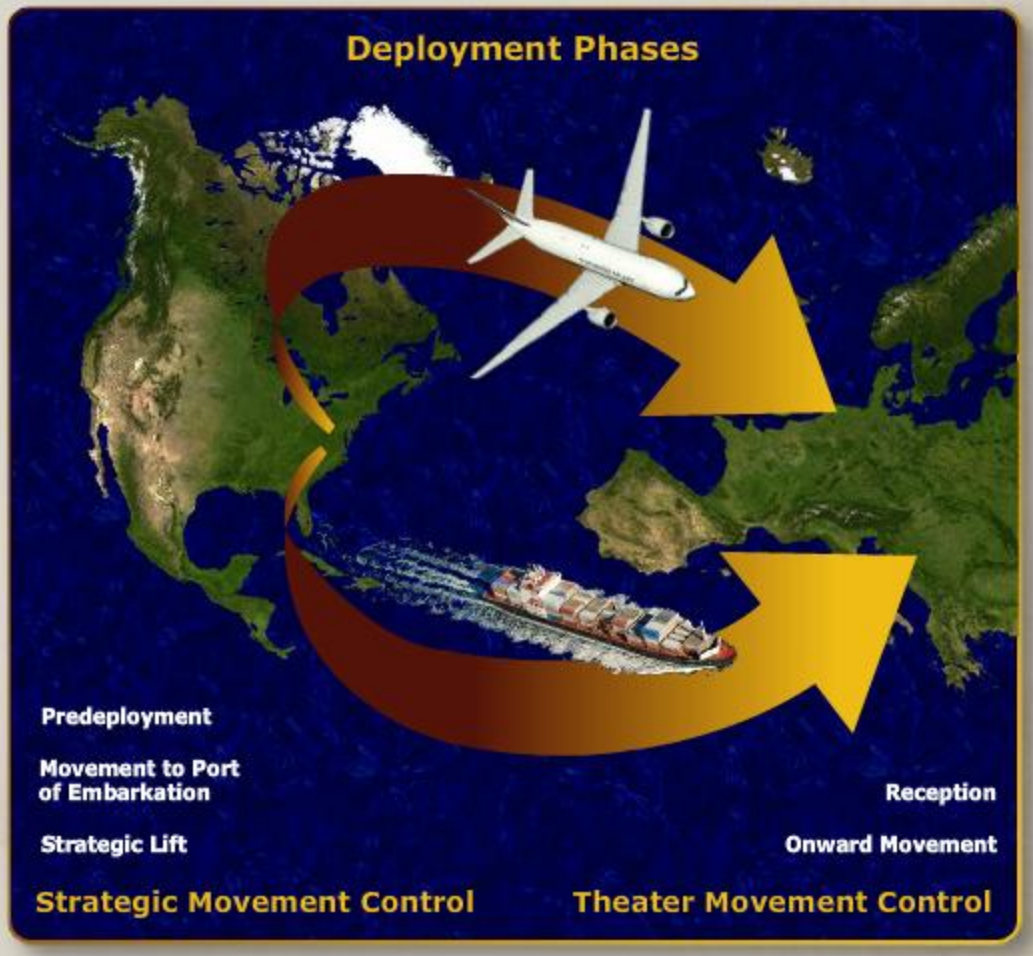
Senior Transportation Officer Qualification Course
Transportation Modes

Concepts and Criteria

U.S. Army transportation units must be adaptive to changing operational environments and opportunities to effectively fulfill transportation missions.

The following logistical concepts will guide your recognition of transportation requirements and opportunities different transportation modes offer:

- Unity of command
- Increased velocity
- Agile logistics structure
- Situational awareness



The thrust of U.S. Army logistic concepts will drive decisions reached at both strategic and operational levels.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Selection Criteria

During the coordination process, movement control units match requirements with modes based on priorities, principles of movement control, and mode selection guidelines.

Choices of a specific mode of transportation are guided by consideration of these factors:

- Priority
  - **Commander's Intent**
  - **Supported Commander**
  - **Preplanned**
  - **Unplanned**
- Required delivery date
- Type of cargo
- Special restrictions
- Economy
- Available resources

A commander's intent on strategic, operational, and tactical levels influence transportation choices.

Journal Narration:
The operational environment heavily influences Mode Selection. This is especially true in primitive environments as revealed in this Journal entry.

MODE SELECTION

Commander's Intent

A commander's intent is an important consideration in determining a transportation mode. He has the ability to coordinate a unity of command and force velocity through his transportation requirements. There are times when the commander specifies the transportation mode.

Supported Commander

The supported commander must validate the transportation mode selected. This requirement acts to decentralize transportation supporting an agile logistics structure and consideration of the current operational environment.

Preplanned

Transportation needs that are preplanned can present opportunities to gain even greater efficiencies. Sometimes emergency transportation requirements can utilize preplanned assets.

Unplanned

Unplanned or emergency transportation needs are normally of a higher priority than planned requirements. They must be acted upon quickly.

In such cases, preplanned transportation assets or support from other services, agencies, or private carriers may be used.

Journal of a Lieutenant Colonel,
BSB Commander
Afghanistan 2008

Amazing challenges here in Afghanistan. Getting supplies from major transfer points to small combat outposts (COPS) in the mountains uses resources developed over a span of centuries.

To get delivery of critical supplies, fuel, food, ammunition, and repair parts, I have used a DoD helicopter; a rotary wing that was contracted, fixed wing CASA-212, a combat logistics patrol, commercial trucks, U.S. Air Force aerial delivery, and donkeys.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Key Points

The following key points were discussed:

- Logistical concepts that provide focus for transportation decisions.
- Mode selection consideration factors:
  - Priority
  - Required delivery date
  - Type of cargo
  - Special restrictions
  - Economy
  - Available resources

Knowledge of the concepts and factors guiding transportation and logistics is important to reach sound decisions as a Senior Transportation Officer.

KEY POINTS

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Quick Challenge

Identify each item as logistical concepts or as factors in determining mode. Select the best category for each element and then select Submit.

Logistical Concepts	Mode Factors	
○	●	Priority
●	○	Unity of Command
○	●	Type of Cargo
●	○	Situational Awareness
○	●	Special Restrictions
●	○	Increased Velocity
○	●	Economy
●	○	Agile Logistics Sructure
○	●	Required Delivery Date
○	●	Available Resources

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Air Mode

The air mode is comprised of both fixed wing and rotary aircraft.

U.S. Army air mode service is provided by:

- Army organic
- U.S. Air Force (USAF)
- Commercial/contracted

The air mode is comprised of both fixed wing and rotary aircraft.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Army Organic Assets

The primary Army aviation unit is the aviation brigade found at the division, corps, and echelons above corps (EAC).

Rotary wing aircraft largely comprise the U.S. Army's air mode assets which include:

- Various CH-47 cargo helicopter variants
- Various utility helicopter variants

The Army has a limited number of fixed wing command and control (C2) aircraft.

U.S. Army mode assets are easier to access and coordinate, but you may be confined to rotary wing aircraft since they comprise the majority of Army air assets.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Army Air – Helicopter

Helicopters are the most costly Army mode for the movement of supplies.

Despite their cost, the **capabilities** of helicopters can outweigh their **limitations** in certain operational environments.

Helicopters are invaluable in supporting forward deployed units.

Journal Narration:
Though costly to operate helicopters offer capabilities that are invaluable in some operating environments.

Capabilities

Helicopters offer capabilities in these areas:

- Operational in all terrain
- Effective over short distances (less than 40 km for external loads)
- Can use unimproved landing zones during external lift operations
- Capable of lifting nearly any load that can be safely rigged and that is within the weight limitations of the helicopter
- CH 47 helicopters are capable of using these pallets:
  - Air Force 463L
  - Standard
  - NATO warehouse pallets when they are equipped with the helicopter internal cargo handling system

Limitations

Helicopter limitations include:

- Operational capabilities limited by weather such as freezing conditions, snow, and thunderstorms
- Cargo load weight, cargo hook limits, or cargo door sizes
- Availability affected by flying hour program or crew rest requirements
- Internal cargo loading may require material handling equipment (MHE)

Journal of a Lieutenant Colonel,
BSB Commander
Afghanistan 2008

Getting great feedback from combat outposts (COPS) about delivering supplies and ammunition with the low cost low altitude (LCLA) parachute delivery system!

The CH 47 has been ideal for this. Without stopping, it can sustain small units with up to four bundles weighing a total of 1,200 to 2,000 pounds; puts it right in their back yard.

These LCLA drops have become critical to our success. They minimize unit vulnerability during retrieval and exposure of the aircraft.

The CH 47 slows up, drops the bundles from 130 feet, ensures retrieval, and continues the loop to the next unit. Great way to get the job done!

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Fixed Wing - Army and Air Force

Fixed wing aircraft offer advantages over helicopters in regards to range, speed, and weight capacity.

Fixed wing assets are used:

- As a complementary mode to expedite movement of mission-essential traffic
- As a primary or major supplementary mode when terrain reduces effectiveness of surface modes

Fixed wing is more economical for scheduled operations producing the greatest sustained ton-mile capability, but have a relatively high ton-mile operating cost compared to most other modes.

Airplanes offer greater economy over helicopter transport, but the condition or state of landing and takeoff areas may inhibit their use.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Air Field

Climate and trafficability of takeoff and landing areas limit the operational capabilities and effectiveness of fixed wing aircraft.

The following capabilities make fixed wing aircraft a valuable transportation asset:

- Heavy drop capabilities
- Container delivery system
- Low altitude parachute extraction system
- Air and land capabilities
- Adverse weather aerial delivery system
- Aerial bulk fuel delivery system

Climate and trafficability of takeoff and landing areas limit the operational capabilities and effectiveness of fixed wing aircraft.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Commercial Air Transport

The Army increasingly leverages contracted and host nation (HN) support assets.

As a Senior Transportation Officer, you will need to be familiar with the guidelines, contracting, and procedures to engage such services.

Many times contracted air transport is called jingle air.

The use of contracted transport support, including aircraft, is common. Contracted uses may involve air transport of cargo or passengers.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Key Points

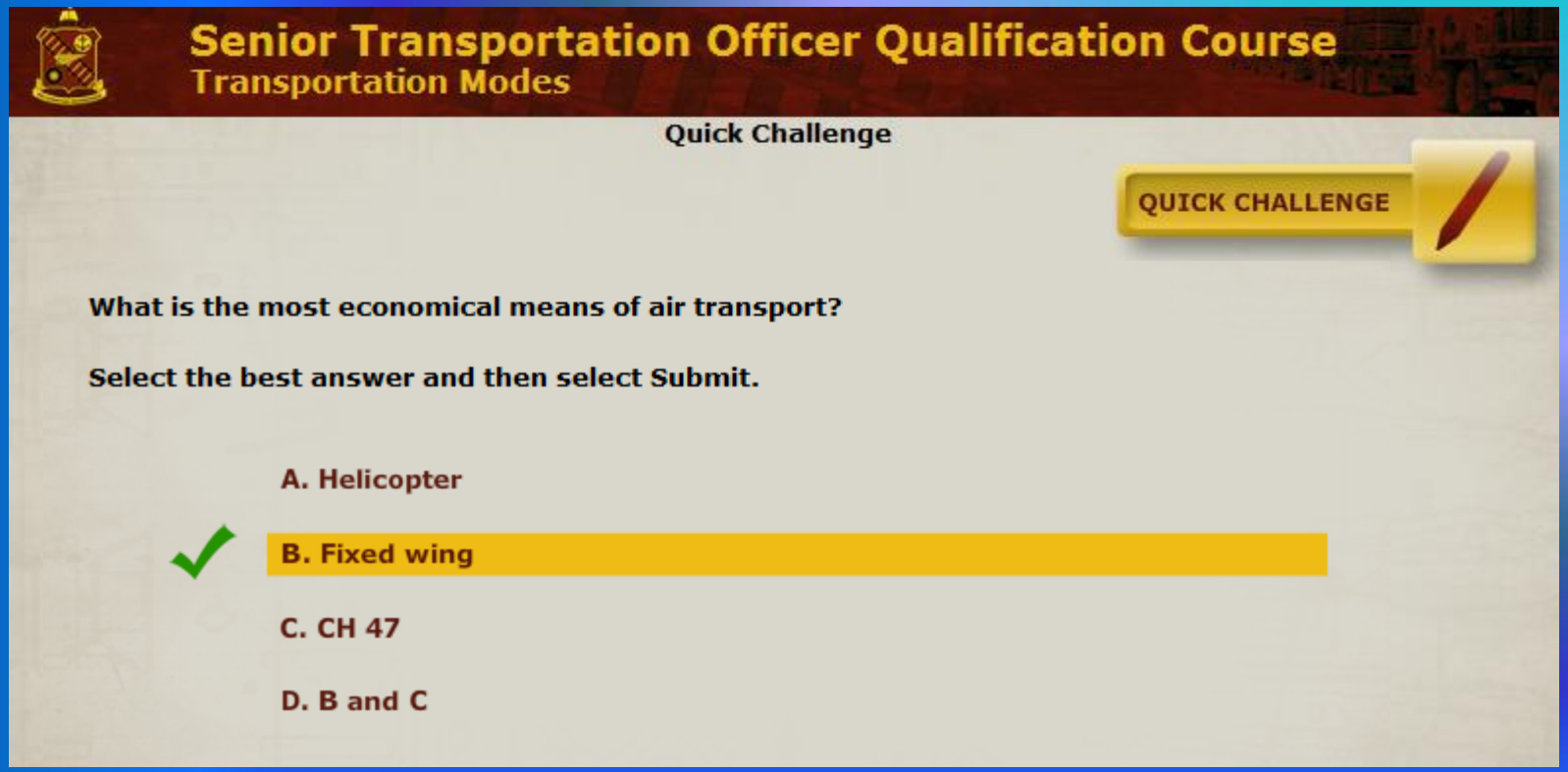
KEY POINTS

The following key points were discussed:

- Most U.S. Army air assets are rotary craft.
- Helicopters are more costly to operate than fixed wing.
- Fixed wing craft offer more advantages when their weight lifting capacity is used over long distances.
- Other than helicopters, fixed wing aircraft are more costly than other transportation methods but offer greater transportation speeds.

Overall, air transport is more costly than most surface modes. However, air transport offers the advantages of speed and ability to fly above difficult terrain.

MODE SELECTION



MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Surface Mode

Surface mode consists of various transportation vehicles. Their use is largely contingent on mode selection criteria and the operational environment.

Surface mode transportation includes:

- Pack animals and human bearers
- Pipeline
- Water
- Rail
- Motor transport

The selection criteria, commander's intent, and the operational environment will drive your selection of a surface transportation for a given mission.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Pack Animals and Human Bearers

Pack animals and human bearers are used to transverse terrain impassible by other surface modes.

As such, this method extends other surface transportation capabilities.

On foot, animals and humans can traverse all tactical terrain in all weather conditions.

Capabilities:

- Approximately 250 pounds carried per pack animal
- Approximately 80 pounds carried per human bearer, depending on pack configuration

Limitations:

- Inefficient use of human resources
- Limited carrying capacity and speed compared to other surface modes should terrain be passable

Pack animals and human bearers can traverse difficult terrain during adverse conditions.

However, better use human capital should be weighed when considering this surface mode.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Pipeline

Pipelines are the primary mode for bulk liquids and solids suspended in liquid.

Capabilities:

- Usability in all weather conditions
- Pipelines being the most economical and reliable transportation mode for bulk liquids
- Minimal personnel needed for operation and maintenance

Limitations:

- Immobility making them vulnerable to enemy attack
- The large tonnage required for their construction

The relative invulnerability of pipelines to adverse weather conditions make them a reliable mode of transportation for liquid type materials.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Sealift

Primarily used for ocean transport, water is also a means to move large quantities of cargo along inland passages.

Capabilities:

- Sealift can operate in all weather conditions and have few terrain restrictions.
- Overall, the most economical long-distance carrier.
- Particularly useful in freeing up other transportation mode assets.

Limitations:

- Economical for long hauls, sealift is slow but viable for preplanned transport where time is not a factor.
- Flexibility is limited by the adequacy of the waterway, support facilities, and channels.
- Sealift is vulnerable to enemy actions and difficult to restore. Foul weather can compromise use of inland waterways.

Water transport can move large quantities of cargo, but is relatively slow compared to other surface transportation.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

Rail

Rail is ideal for the sustained movement of large cargo.

Rail is the primary inland mode used to sustain a flow of large quantities of traffic over long distances.

Capabilities:

- Railways can be operational in all weather conditions.
- They are capable of shipping any commodity.
- They are most economical for continuous line-haul operations.
- They have the greatest sustained ton-mile capability and can accommodate a variety of specialized equipment and services.

Limitations:

- Fixed routes
- Rail-line clearances restricting movement of outsized loads
- Availability of tractor power
- Vulnerability to enemy action

A railroad's ability to accommodate most cargo types economically over a long haul makes it ideal for sustainment activities.

Though capable of hauling a variety of cargos, rail capabilities are hindered by underpasses and vulnerability to enemy attacks.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

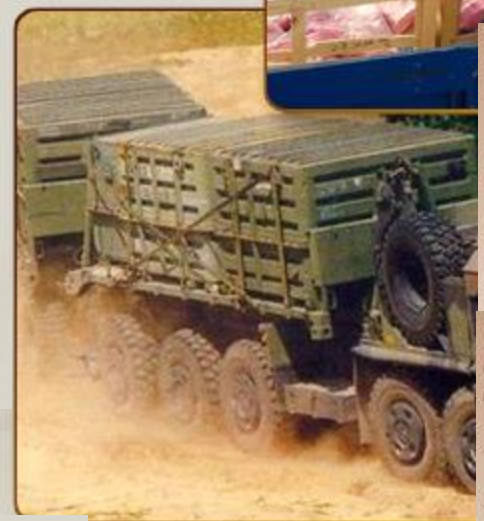
Motor Transport

Motor transport is a key component in an integrated transportation system. Assessment of terrain and routes for passability of motor transport is required during adverse weather conditions.

Motor transport is:

- A supplementary mode for line-haul operations by the trailer-relay system
- The primary mode for distribution operations and logistical support operations in a combat zone

Motor transport limitations are often outweighed by its capabilities to augment a transportation delivery system.



Journal of a Lieutenant Colonel,
BSB Commander
Afghanistan 2008

There is a growing concern to control pilferage from host nation fuel trucks.

Afghan truck drivers must pay a tithe to local leaders, Taliban and others to cross territory. This is usually done by paying them from part of the fuel they are shipping.

We have permitted up to 5% pilferage without prosecuting local drivers. This is done with a warning that prosecution would occur for anything over that amount. With increased security in the area, this has decreased to 2% at times.

Some in the brigade seek to eliminate tithing allowances. However, I believe it is so engrained in Afghan culture, it would take 25 years or more to remove it entirely.

Once, 40 supply trucks were burned en route. Personally, I would rather allow 2% pilferage and be sure 4500 gallons of fuel or other supplies get to where our troops need it.

Motor transport by host nation vehicles is very common. Awareness of road conditions, the weather, and culture in your area of operations will be key to your success.

Journal Narration:
Motor transport is difficult enough in a primitive environment, but cultural influences bring new challenges and opportunities to build confidence among host nation contractors.

MODE SELECTION

Senior Transportation Officer Qualification Course
Transportation Modes

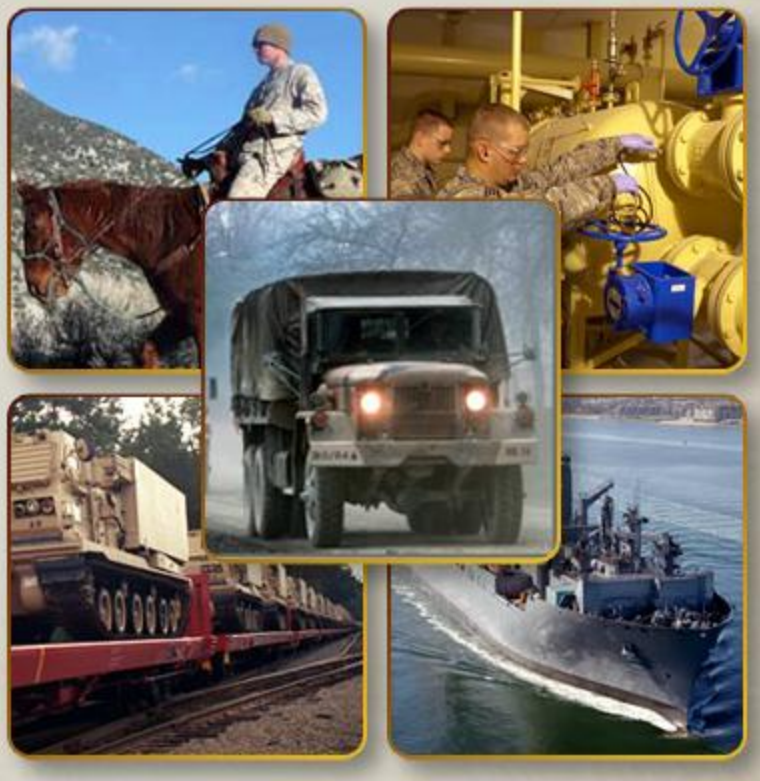
Key Points

KEY POINTS

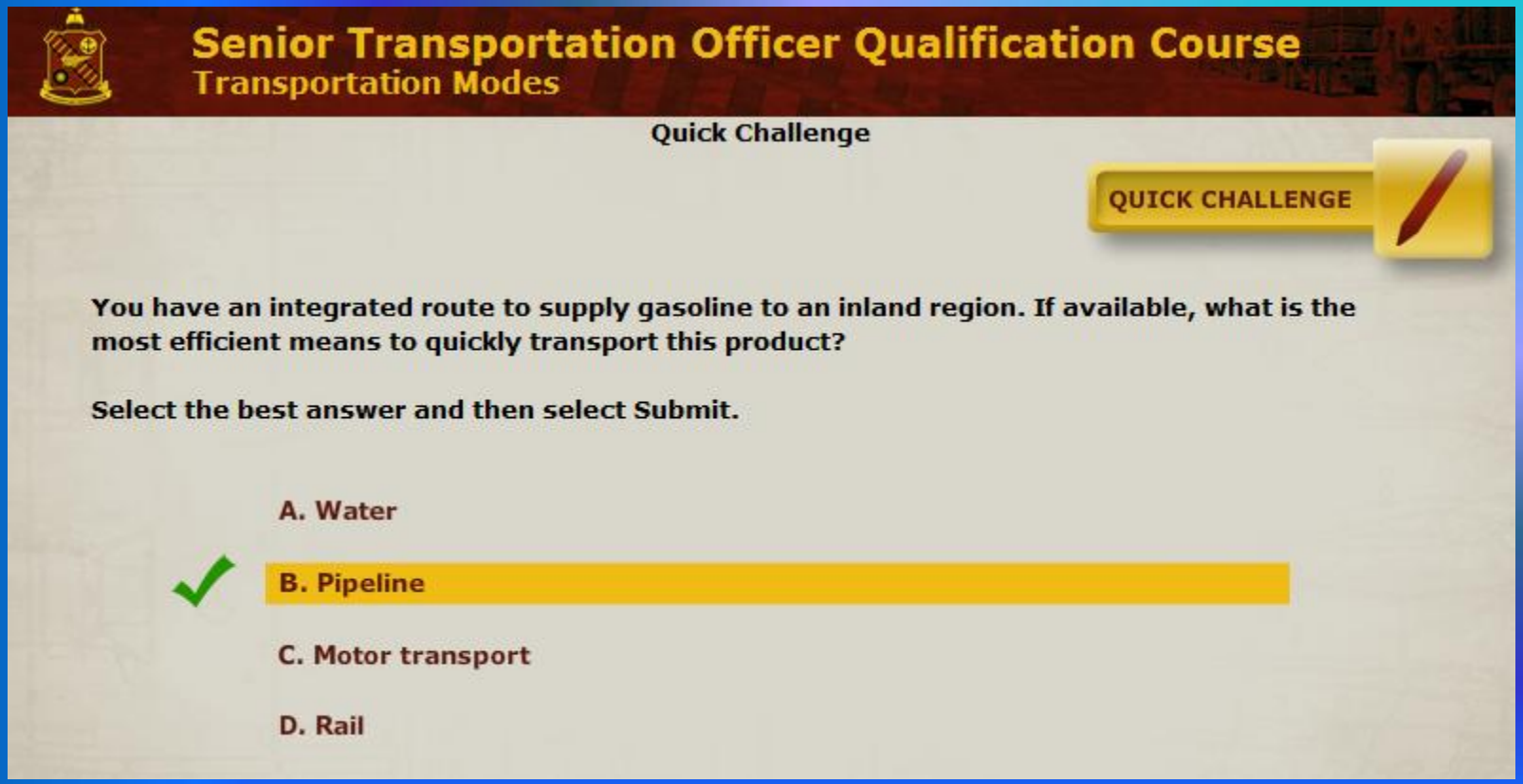
The following key points were discussed:

- Human bearers and pack animals can traverse over difficult terrain in adverse conditions, but expend valuable manpower
- Pipelines are efficient for liquids and suspended solids
- Water is primarily used for ocean going transport
- Rail is a primary inland mode for sustained flow of large quantities and distances
- Motor transport is essential to an integrated transport system

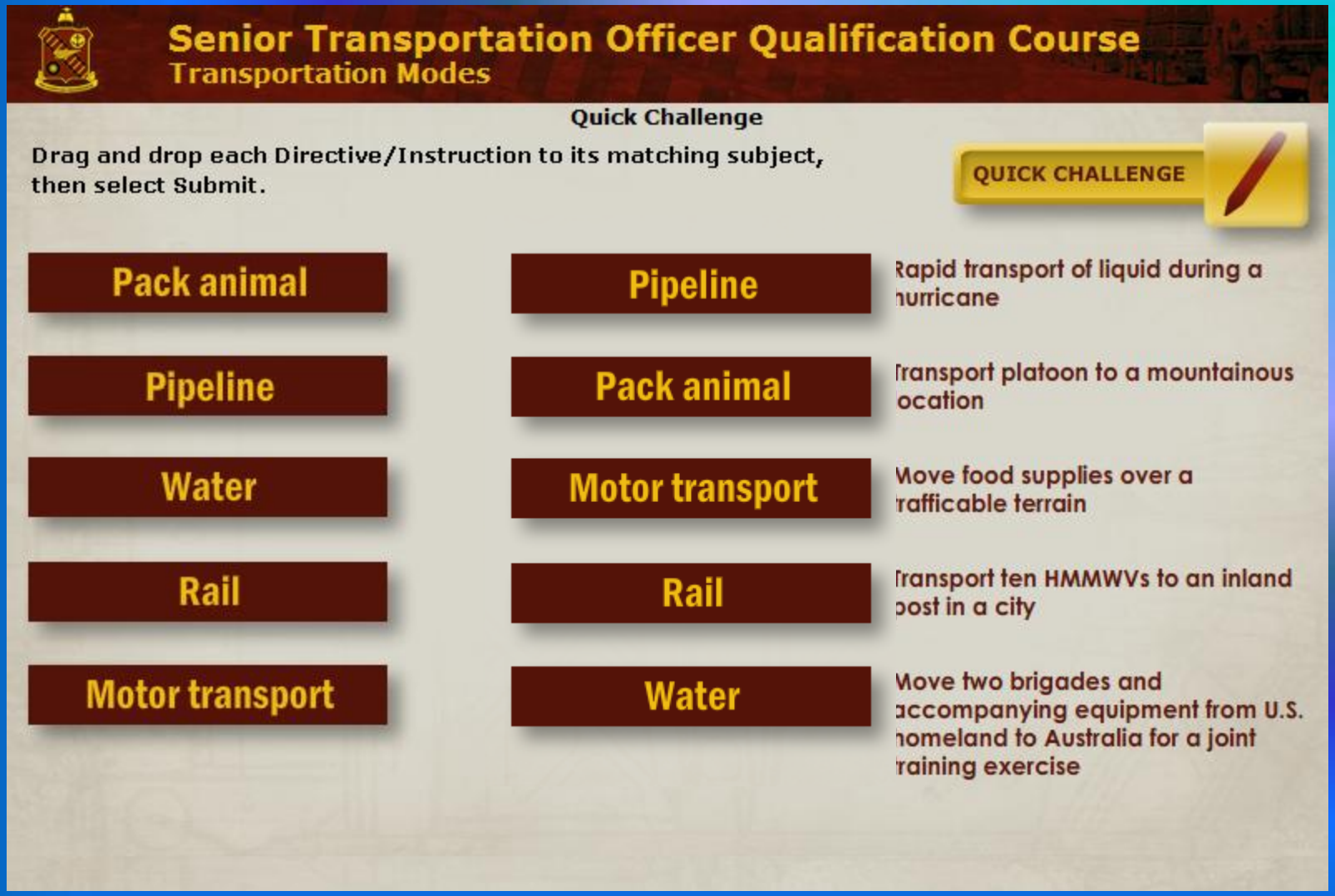
When properly integrated within a transportation system, the advantages of each air and surface mode can meet various transportation challenges.



MODE SELECTION



MODE SELECTION



MODE SELECTION

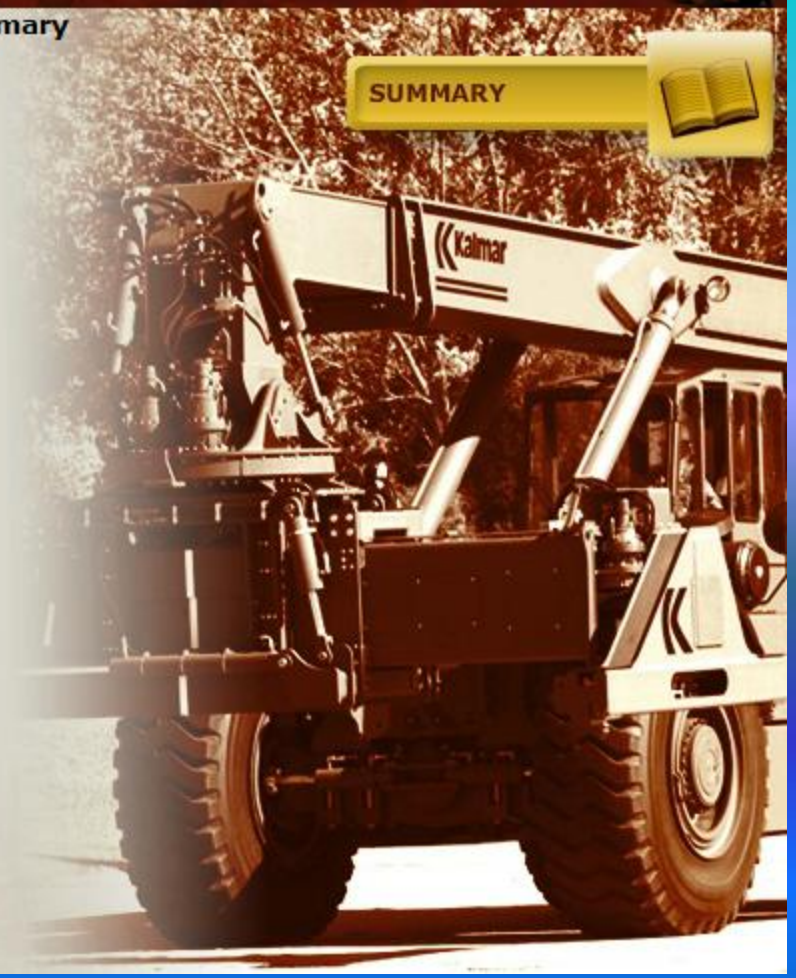
Senior Transportation Officer Qualification Course
Transportation Modes

Summary

In this lesson, you have learned about transportation modes and the advantages and disadvantages of these transportation types:

- Air
- Pack animals and human bearers
- Pipeline
- Water
- Rail
- Motor transport

In this lesson, you have learned about the advantages and disadvantages of air transportation, pack animals and human bearers, pipelines, water transportation, rail, and motor transport.



MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Motivator

Transportation support stands ready in time of war, peace, or to support our Soldiers anywhere in the world.

As a Senior Transportation Officer, it is vital that you understand what factors to assess and how to prioritize them when selecting a mode of transportation.

Your ability to quickly and correctly assess these factors will be critical to your success.

Certain factors influence the priority of a transportation mission.

As a Senior Transportation Officer, it is vital that you know the role these factors and considerations play in the selection of a transportation mode.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Lead-in

LEAD-IN

The Transportation Branch must be prepared to move critical supplies in response to disasters, war, or to provide sustainment.

Transportation of supplies after the 2010 earthquake in Haiti was key to the survival of thousands.

Soldiers deployed worldwide, and at home, will also depend on the Transportation Corps and your ability to perform your duties.

As a Senior Transportation Officer, you will interact with supply and commanders on both the strategic and tactical levels to plan and coordinate deliveries to the right place at the right time.

Your knowledge of and responsiveness to transportation priorities and modes will be key to your success.

The Transportation Branch moves critical supplies through an integrated transportation-based global distribution system.

Your transportation expertise and leadership will be demonstrated through your knowledge of the factors that influence mode selection.

MODE SELECTION

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Transportation Officer Role

Transportation Officers command, direct, control, coordinate, manage, or serve in positions requiring general knowledge of transportation organizations, equipment, and doctrine as well as organizations engaged in transportation-related services.

Transportation Officers in a Transportation Section develop plans to support the movement of the division's forces by various modes. In some cases, the mode may be directed.

Once deployed, the Transportation Section continues to interface with movement control teams and as appropriate recommend mode selections to sustain the operations.

As a Senior Transportation Officer, awareness of the organizations that respond to transportation missions and challenges is critical.

Journal Narration:
As a Senior Transportation Officer, is it critical that you know the transportation responsibilities of various organizations in the theater. This knowledge will empower you to make use of the entire theater distribution network.

Journal of a Lieutenant Colonel,
BSB Commander
Afghanistan 2008

Been in Afghanistan 10 months now. Trying to look back at some key principles that might help the next unit.

One important step we took in the first months was to map out the different parts of the transportation sector in this theater, including the flow of information and the relationship between every office/organization in the theater.

This helped the Theater Sustainment Command to have a visual picture of who is operating around us and what transportation responsibilities they were covering.

It is imperative that the transportation office have a complete understanding of the distribution enterprise.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Movement Manager

As a Senior Transportation Officer, you should be aware of the role of the movement manager.

A movement manager's role in regards to mode selection can involve developing a movement program or the selection of a transportation mode should a movement be unplanned or unprogrammed.

They are primarily responsible for prioritizing requirements and selecting the mode most appropriate to satisfy the requirement.

Movement managers, through mode selection and transportation request procedures, are key to the support of transportation requirements.

Movement managers expedite onward movement of cargo and personnel. Sometimes if a movement is unplanned, this may also involve mode selection.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Movement Control Teams

The MCTs are the immediate interface with the organization that is requesting transportation support. The MCTs responsibilities are as follows:

- Origin MCT review
- Mode considerations
- Mode selection
- Issue transportation movement release (TMR)
- Request positive in-bound clearance
- Commit mode operators
- Close TMR

Movement control teams interface with the organizations requesting transportation support and the transportation organizations delivering that support.

Journal Narration:
Prudence regarding projected and known need for transportation assets weigh heavily in asset allocation and tasking.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

In the selection of mode, the MCT considers these factors:

- Priority
  - Need/priority
- Required delivery date
- Commodity/type cargo
  - Sensitive
  - Classified Materiel
- Special restrictions
  - Political considerations
  - Tactical considerations
  - Highway considerations
  - Rail considerations
  - Air considerations
  - Water considerations
- Economy/efficiency
- Available resources
  - Host nation (HN) assets
  - Organic
  - Common user

Most mode considerations fall into the major mode selection criteria of priority, required delivery date, commodity or type of cargo including special restrictions, economy and efficiency, and available resources.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Key Points

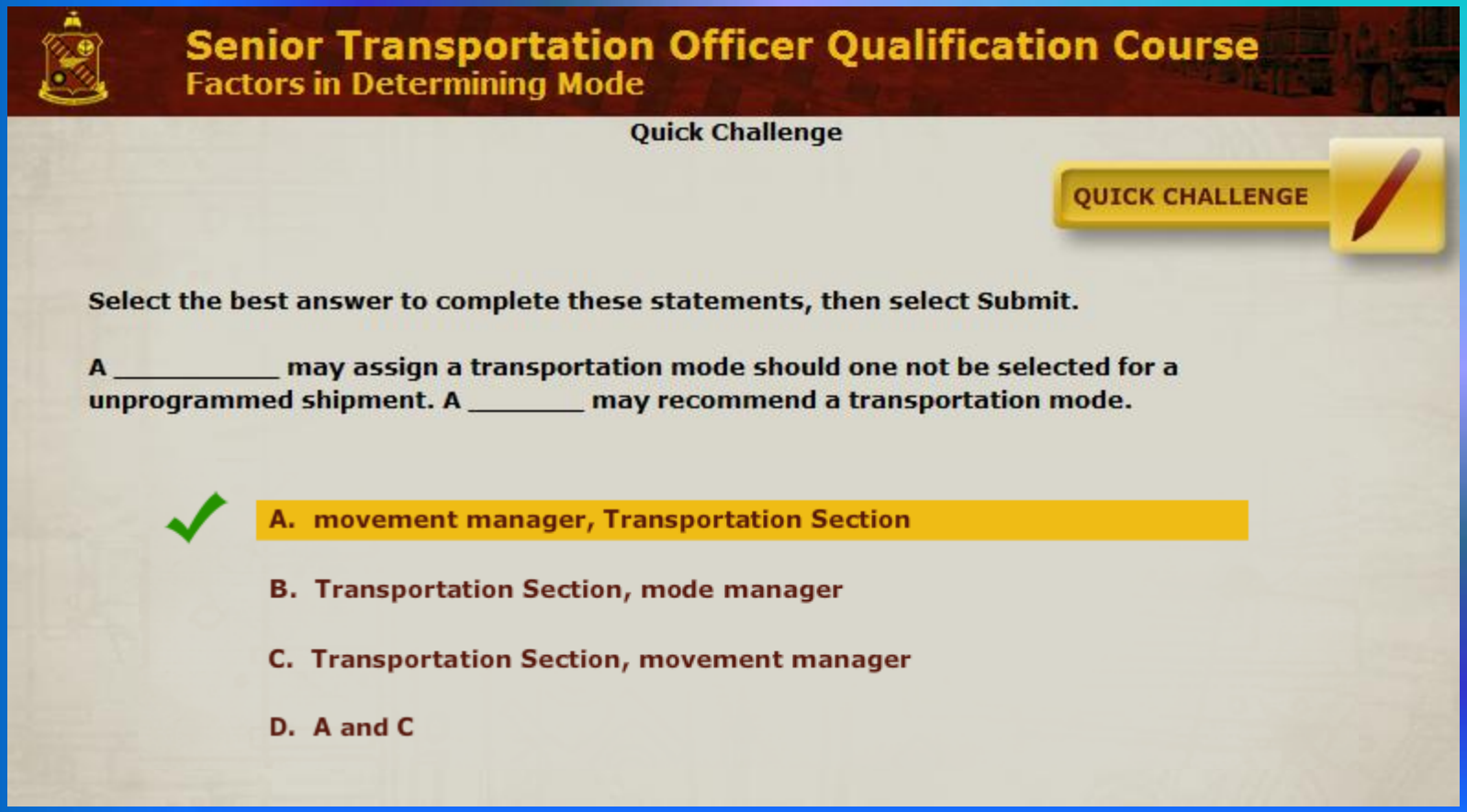
The following key points were discussed:

KEY POINTS

- A Transportation Officer must have general knowledge of transportation organizations, equipment, and doctrine as well as organizations engaged in transportation-related services.
- Movement managers support transportation requirements through mode selection and transportation request procedures.
- A movement manager may select the transportation mode for an unplanned transportation for which no mode has been assigned.
- The origin movement control team (MCT) tasks all available transportation modes to fulfill known requirements.

Transportation Officers and movement managers use their expertise in transportation modes to meet emergency and sustainment transportation challenges.

MODE SELECTION



MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Priority Factors

Each transportation mission is assigned a priority for movement.

Priorities can be set for regularly scheduled transportation needs. However, should unplanned or emergency movements be required, new assessments can be made.

Determination of priority can be:

- Designated
- Preplanned
- Immediate
- Emergency

Priorities are usually related to time of arrival. Priority types include designated, preplanned, immediate and emergency.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Priority

Priority of a shipment can be designated by the user based on the commander's intent.

Assignment of a priority and mode must be validated by the user.

Assigned delivery dates are:

- Standard Delivery Date (SDD)
- Requested Delivery Date (RDD)

Shipment priorities can be designated by the user. Overall, the commander's intent has a strong bearing on transportation priorities.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Preplanned

Movements planned at least 72 hours in advance are categorized as preplanned.

Priority of preplanned movements can change based on:

- Unit movement and the operational environment
- Need of transportation assets for immediate or emergency priorities
- Continuous coordination to maintain logistical support and uninterrupted transportation to other supported units in conjunction with large unit moves

Preplanned movements are transportation missions that are arranged at least 72 hours in advance.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Immediate Requests

Immediate requests are all requests that are not preplanned.

Movement controllers must quickly determine if air is the most effective mode based on the urgency of the requirement and characteristics of the personnel, supplies, and equipment to be moved.

Unanticipated or urgent ground force requirements and priority transportation requests should be validated and passed on as immediate airlift requests.

Immediate request validations are expedited through command channels.

If a request is not preplanned, it is considered to be an immediate request.

Journal Narration:
Immediate requests are not always for the achievement of a military objective.

Immediate requests for humanitarian efforts are also answered by the Army's transportation elements.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Emergency

Emergency requests are special types of immediate requests. They are for requirements critical to accomplish the tactical mission or for unit survival.

These missions are the highest priority established by the combatant commander.

Often, emergency requests are met with air mode assets because of their speed and ability to traverse difficult terrain.

Like immediate requests, emergency request validations are expedited through command channels.

A special type of immediate request is an emergency request. Emergency requests must be successfully met to ensure unit survival or accomplishment of a tactical mission.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Key Points

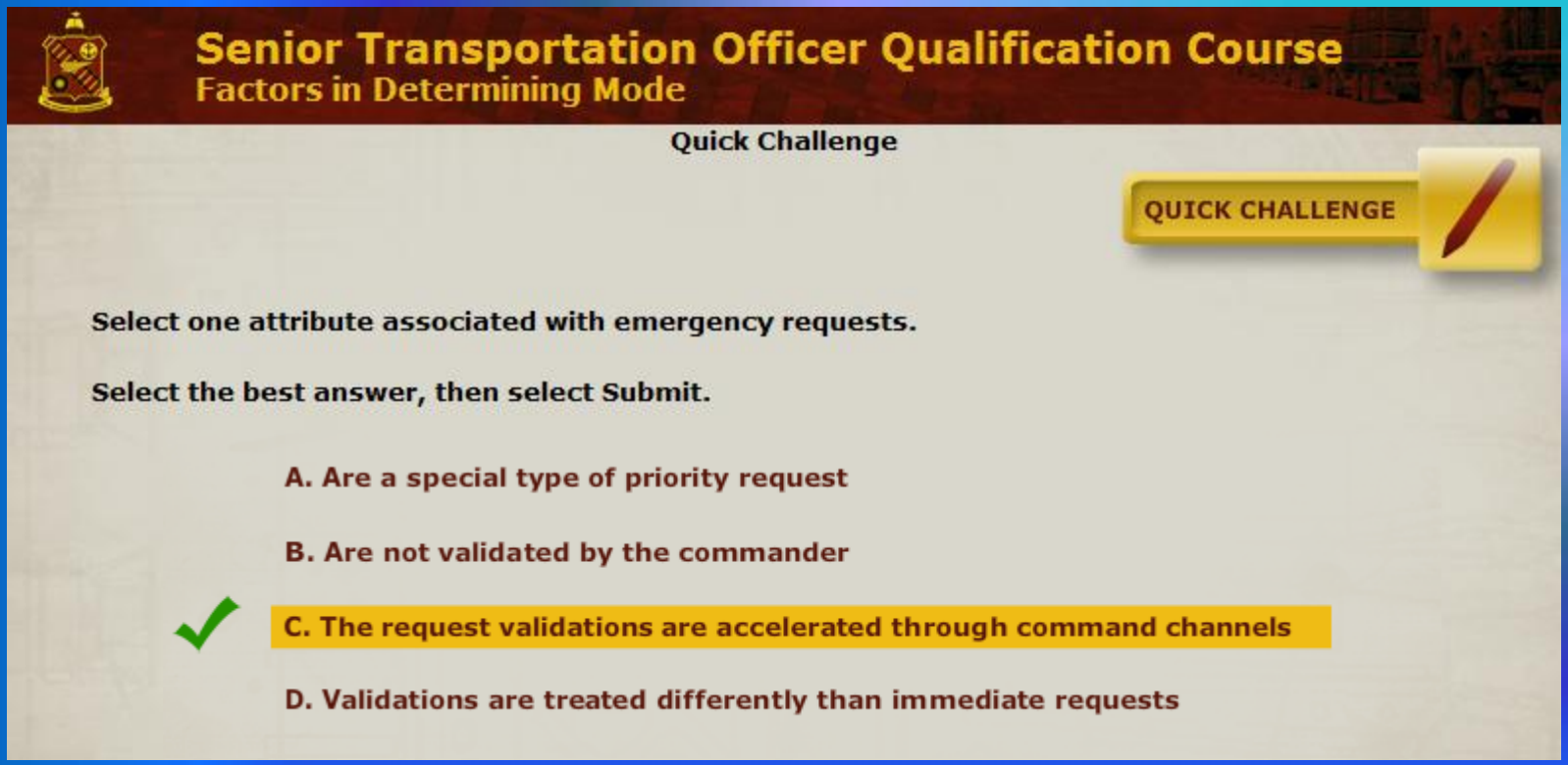
The following key points were discussed:

KEY POINTS

- The priority of a shipment is designated by the user based on the commander's intent.
- Preplanned movements are planned at least 72 hours in advance.
- Immediate requests are all requests that are not preplanned.
- Emergency requests are special types of immediate requests with the highest priority established by the combatant commander.

Priorities give order to the transportation process; however, adaptability to respond to immediate and emergency requests is vital to an agile logistics force.

MODE SELECTION



MODE SELECTION

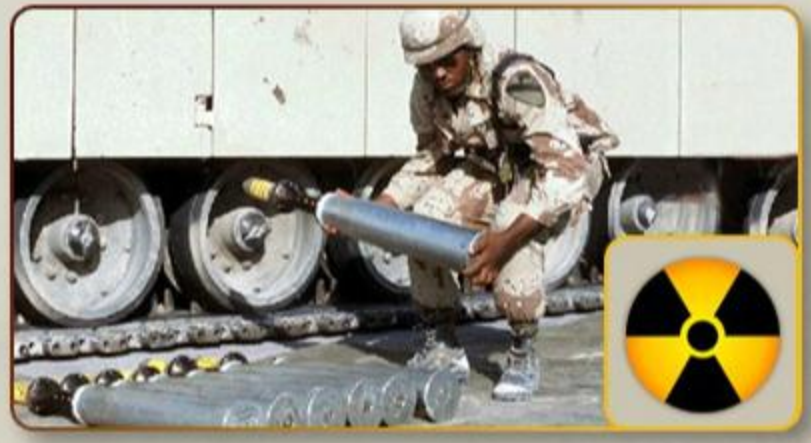
Senior Transportation Officer Qualification Course
Factors in Determining Mode

Cargo Requirements

Conditions required by the cargo or the delivery date, cargo origin, and destination influence transportation mode selection.

The following cargo characteristics must be considered during mode selection:

- Weight and cube - Some railroad underpasses may not accommodate large or odd shaped cargos
- Refrigeration
- Hazardous cargo
- Controlled or sensitive cargo
- Security needs (value of cargo)



The type of cargo influences mode selection.

The mode must be able to accommodate cargo requirements such as weight and size, refrigeration, protection during shipping due to hazards, controlled or sensitive cargo, or additional security.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Personnel

The needs of personnel during transport influence mode selection.

Personnel movements fall into these categories:

- Troops
- Civilians
- Patients
- Prisoners of War

Just like cargo requirements are considered in mode selection, the special needs of personnel must also be considered.

The selection of a transport mode or vehicle must meet the specialized requirement for troops, civilians, patients, and Prisoners of War.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Economy

The economy of a transportation mode may be negated by lack of efficiency if time, loading, or unloading of the cargo is compromised.

Whenever possible:

- Reduce or eliminate cargo rehandling
- Avoid crosshauls
- Utilize backhaul opportunities

The lack of material handling equipment at the destination may entail use of another mode entirely.

Greater economy and efficiency is achieved the fewer times cargo is handled between origin and destination.

Whenever possible, seek to reduce or eliminate cargo rehandling, avoid crosshauls, and utilize opportunities to transport cargo on the backhaul.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Determining Economy

Many elements can influence the economy of a specific mode for a certain type of cargo.

Tools are available to help assess and measure the impact of these and other considerations:

- Minimal rehandling
- Time-distance considerations
- Critical points or restrictions that may impede movement

There are many criteria to consider when determining the economy of a mode for a specific mission.

Tools are available to aid in the assessment of these factors.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Key Points

KEY POINTS

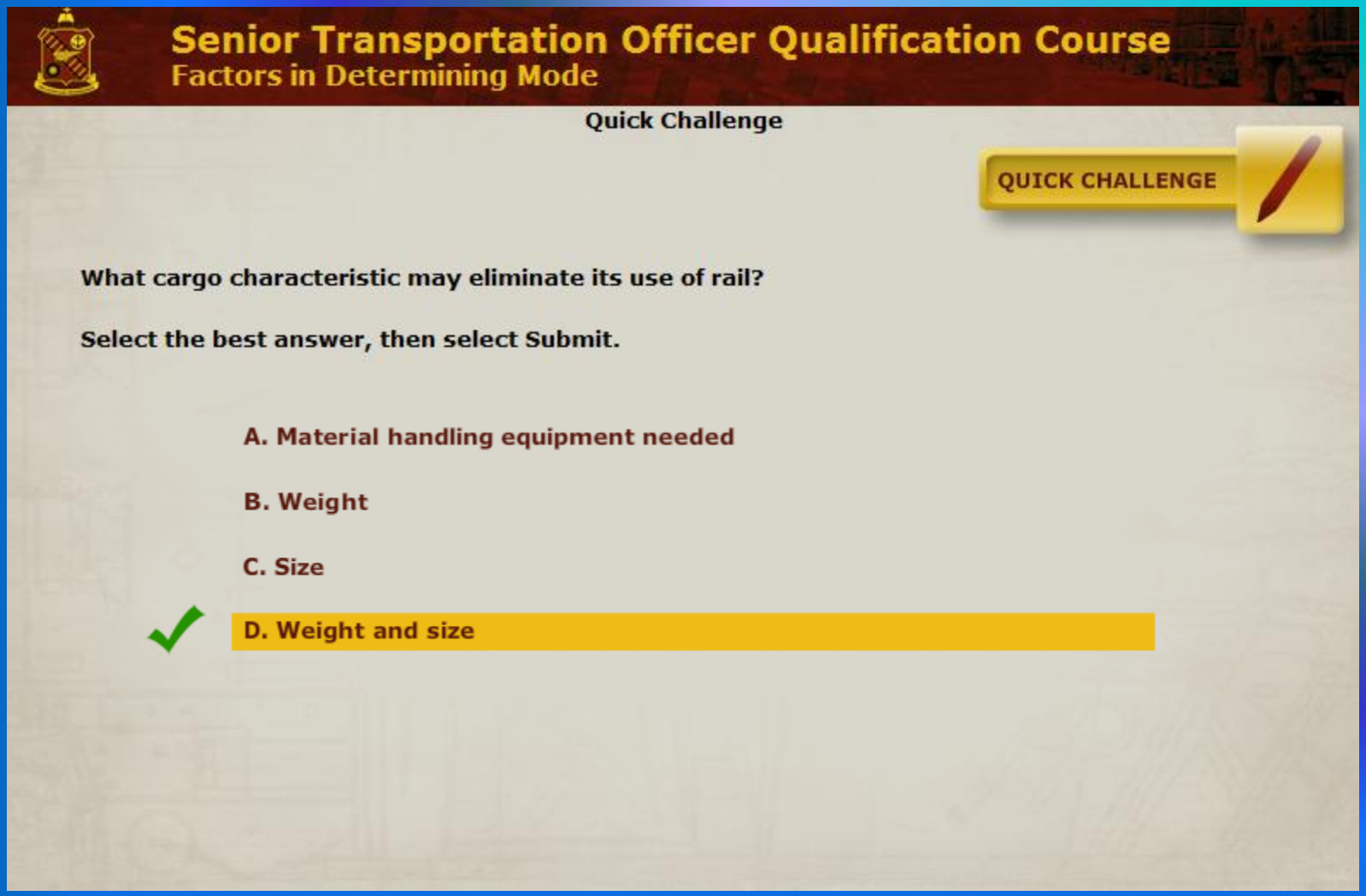
The following key points were discussed:

- The mode must be able to accommodate specialized cargo requirements and protections.
- Personnel types such as troops, civilians, patients, and Prisoners of War have specialized needs a transportation mode must meet.
- Minimizing cargo handling between origin and destination increases economy and efficiency.
- Minimizing crosshauls.
- Seeking backhaul opportunities.
- Considering time, distance, and restrictions to movement.

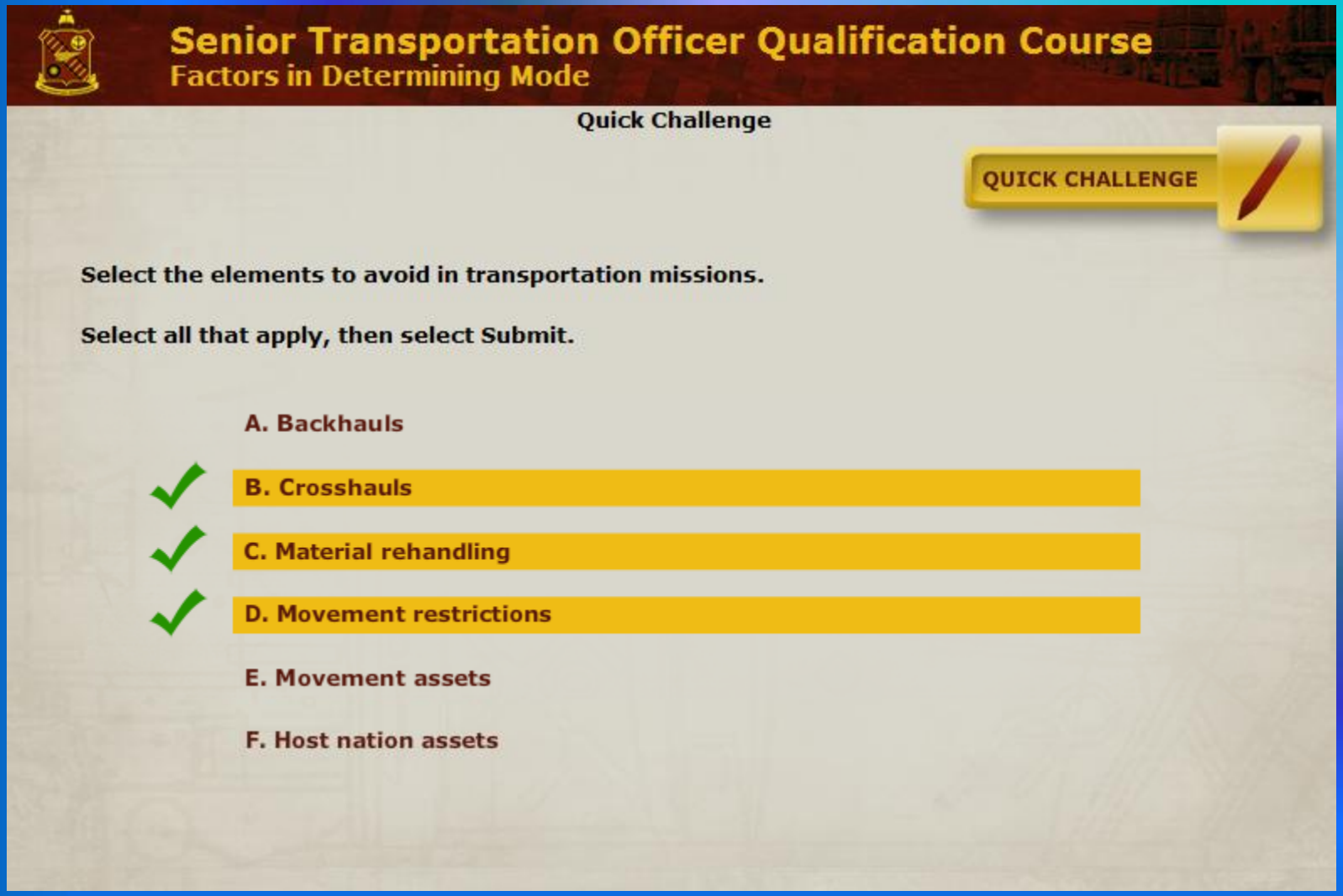
The transportation mode selected must accommodate priorities, cargo and personnel requirements.

It must also be economical and demonstrate the efficient use of available assets.

MODE SELECTION



MODE SELECTION



MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Transportation and Supply

When going outside the Army's organic assets, more time may be required. This along with other factors will guide your utilization of available assets.

It is very important to be aware of Army assets available to you.

Maintain a close relationship with supply. Their transportation assets and material handling equipment (MHE) may be prepositioned in a manner that complements your needs.

Whenever possible, utilize Army assets, including logistical support offered by supply organizations.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Available Resources

When searching for available assets to meet transportation missions, consider:

- Supply
- Prepositioned assets
- Organic
- Common User
- Host nation
- Reception, material handling, and in-transit storage capabilities

Remember, as a Transportation Officer, it is critical to know what assets are available within your area of operations.

Seek as needed, assets from other military services, supply, as well as commercial, and host nation resources.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Operating Environment

In terms of logistics support, the current operating environment demands logistics that is responsive, flexible, and precise.

Flexible transportation technologies provide:

- Rapid crisis response
- Capability to track and shift assets even while en route
- Delivery of tailored logistics packages
- Sustainment at the tactical, operational, and strategic levels of operations

The capability of the Transportation Corps to rapidly deploy supplies and support worldwide rests in the successful integration of information, logistics, and transportation technologies.

Journal Narration:
Army missions span the globe. The Army transporter's ability to include factors in the operational environment in the accomplishment of the mission speaks well of the professionalism of the U.S. Army Transportation Corps.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

METT-TC

The current operational environment can heavily influence security and timeliness of a delivery.

As such, an analysis of current conditions should be conducted to consider:

- M-Mission
- E-Enemy
- T-Terrain
- T-Troops
- T-Time
- C-Civilians

The METT-TC analysis will also help assess the political and security aspects of your transportation mission.

Conducting a METT-TC analysis aids the assessment of security and political considerations that may influence mission success.

Journal of a Lieutenant Colonel
BSB Commander
Iraq

Over 500 host nation drivers have received training and security clearances to work in the Iraqi Transportation Network (ITN).

A consortium of tribally-owned trucking companies ITN agrees to transport military cargo without a security escort.

The tribes guarantee the cargo will arrive safe and undamaged. Interestingly, rival tribes are now working together for the economic benefit of all.

It has been a month now and things have been going great with an 80% increase of truckloads delivered compared to last month.

It is working out so well, ITN will be included in the theater's strategic movement plan. The plan will task ITN with missions such as bottled water transportation between Forward Operating Bases.

Journal Narration:
Transportation missions often use commercial assets, including host nation assets.

Working with host nation transportation presents some interesting challenges and successes with benefits beyond the immediate transportation mission.

MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Key Points

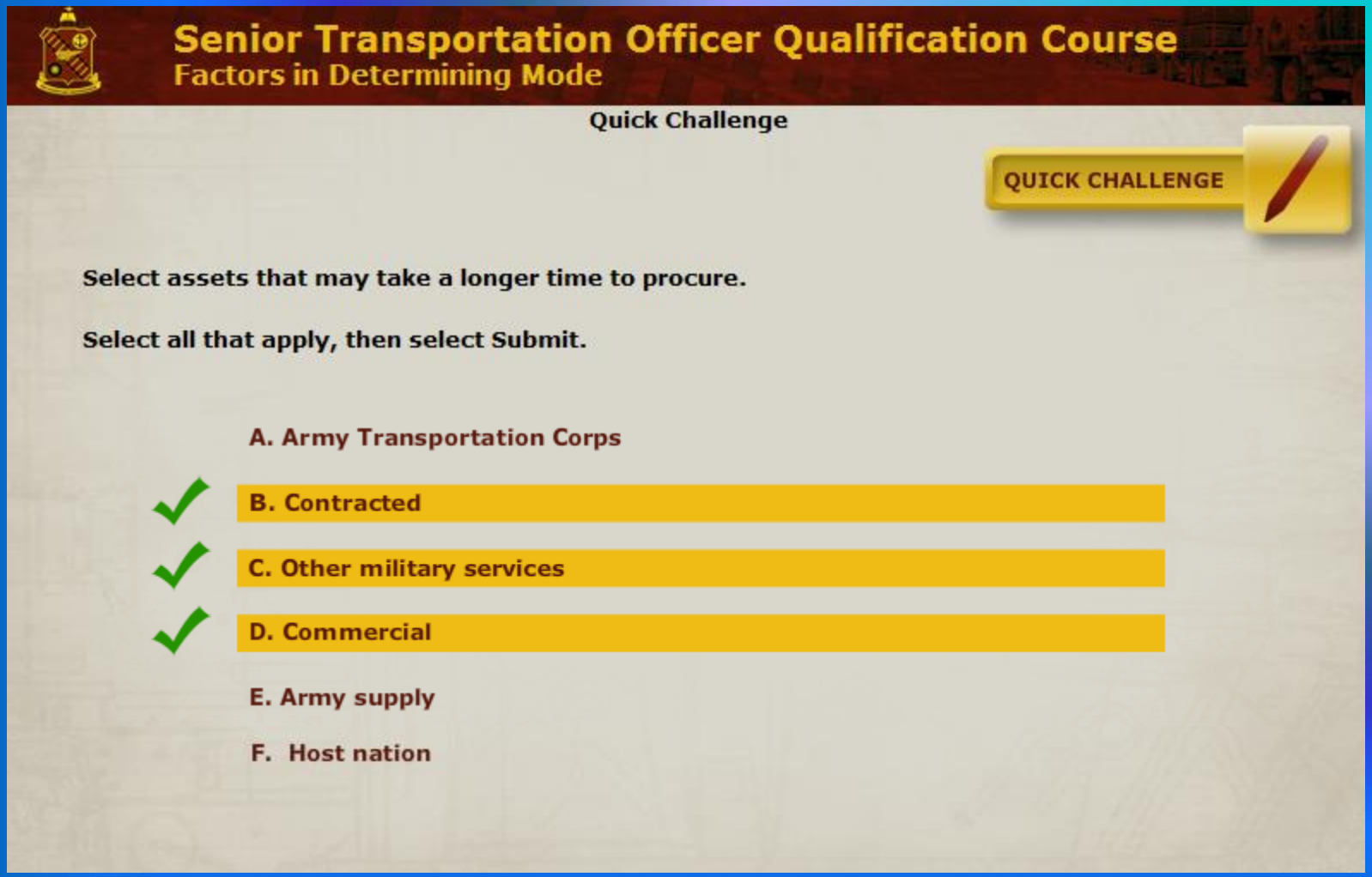
The following key points were discussed:

KEY POINTS

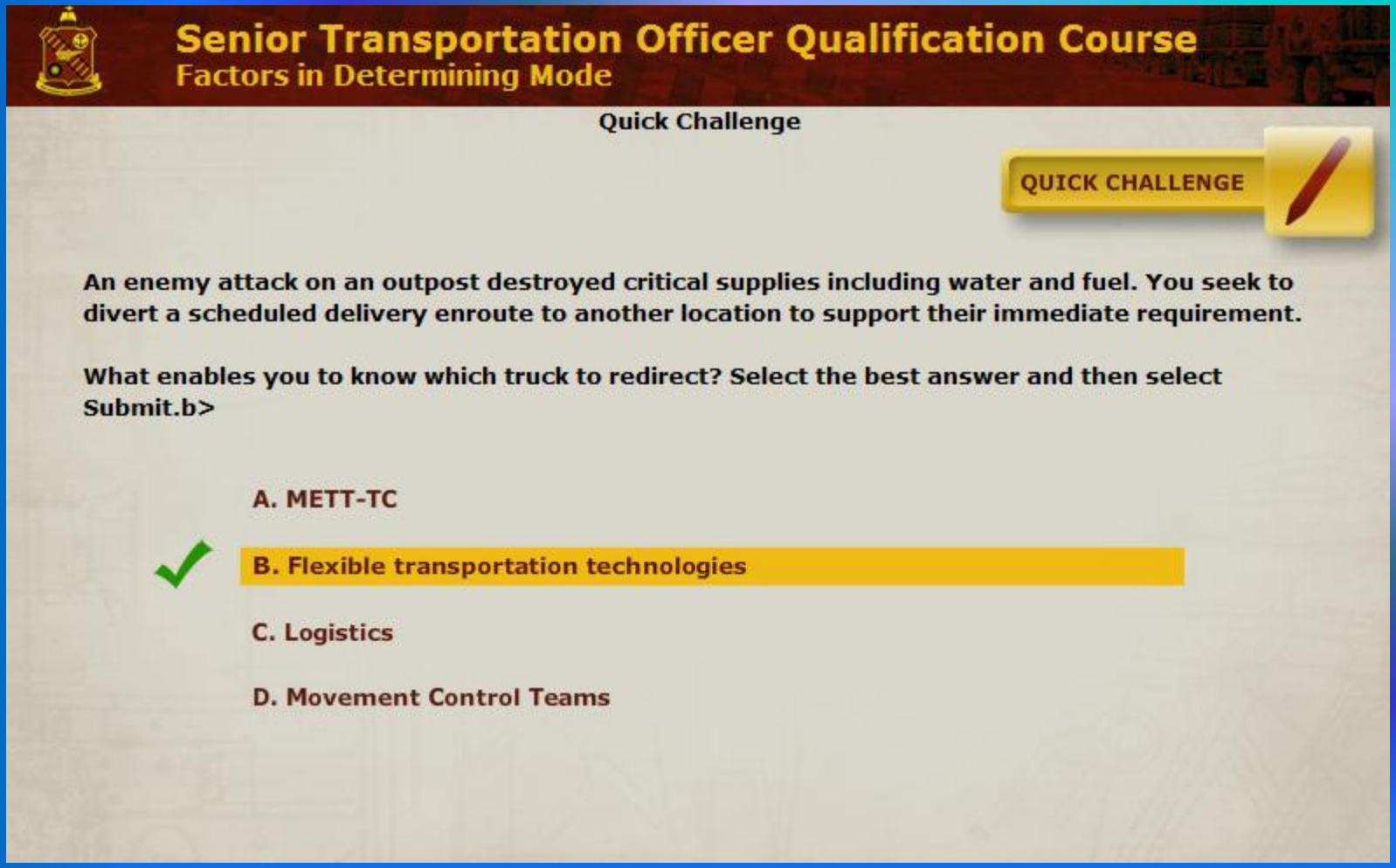
- Army transportation assets are procured more quickly than common user assets.
- Seek as needed, assets from other military services, supply, as well as commercial, and host nation resources.
- Flexible logistics and transportation technologies.
- The purpose of an agile support system and tailored logistic packages capable of rapid response and reallocation of assets to meet requirements at all levels.
- A METT-TC analysis provides insights into the political and security aspects of a transportation mission.

Flexibility is the foundation of an agile and responsive Transportation Corps. It enables the procurement of transportation assets best positioned to efficiently meet requirements.

MODE SELECTION



MODE SELECTION



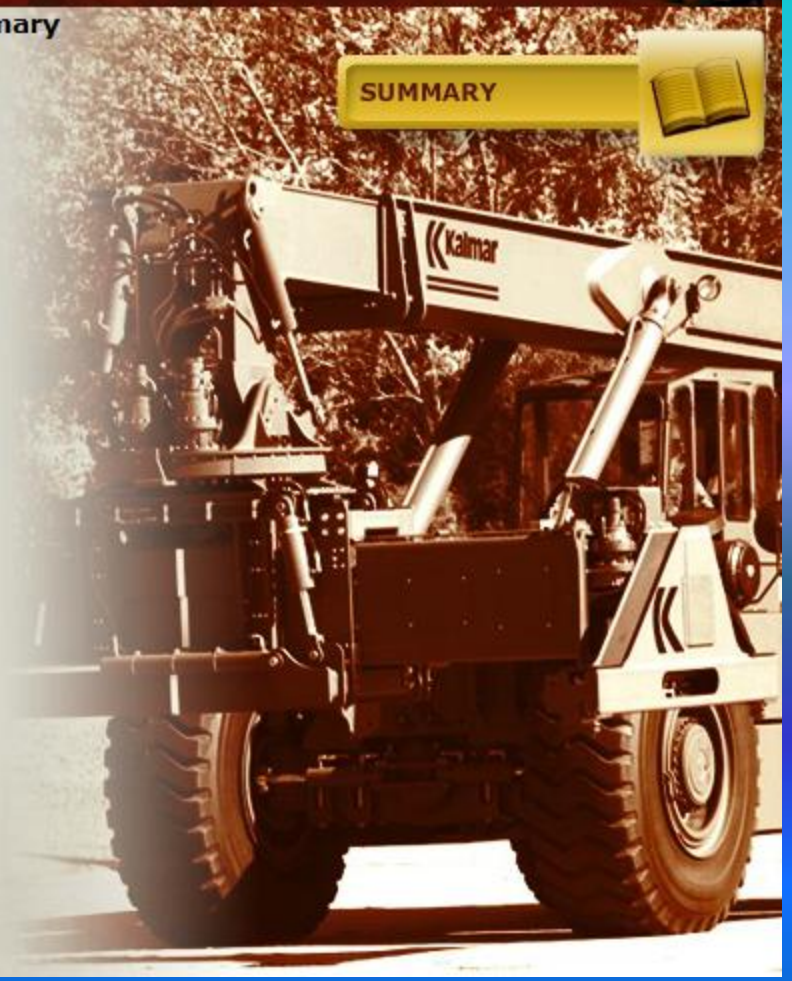
MODE SELECTION

Senior Transportation Officer Qualification Course
Factors in Determining Mode

Summary

In this lesson, you have learned the factors to consider when selecting a transportation mode to include:

- Commander's intent
- Priority
- Delivery dates
- Cargo
- Economy
- Available resources
- Operational environment



In this lesson, you have learned about the factors to consider when selecting a transportation mode to include the commander's intent, priorities, delivery dates, cargo, economy, available resources, and operational environment.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Motivator

In this lesson, you will learn about the interactions and tools that lead to the agile engagement of surface transportation and the concepts and principles behind them.

Your mastery of these concepts will facilitate the proper utilization of organizations and tools to successfully accomplish transportation missions in an ever evolving operational environment.

Behind the organizational interactions and processes that drive the engagement of surface transportation are concepts and principles upon which the Transportation Corps is built.

The practice of these principles and concepts will propel the Transportation Corps to meet future demands and challenges in an ever evolving operational environment.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Lead-in

LEAD-IN

The Army vision of 2010 increases its agility and responsiveness by the integration of new technologies and information sharing between transportation organizations.

As these technologies and capabilities evolve, new doctrine will be instrumental in their proper utilization.

Your ability to grasp the concepts driving this fusion of information and organizational capabilities will assist your development of doctrine, procedures, and policies for the Transportation Corps.

As a Senior Transportation Officer, you will be engaged in the development of doctrine, procedures, and policies that direct the use of emerging technologies in transportation management.

Your application of the concepts and principles that drive the development of these technologies and knowledge of the organizations that use them will increase your leadership abilities in the Transportation Corps.

MODE SELECTION

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Concepts

The Transportation Corps uses automation and tools in a manner that supports the Army's overall concepts of centralized control and decentralized execution.

The thoughtful application of these concepts produce an agile, flexible, responsive Transportation Corps and most efficient choice of a transportation mode:

- **Automation** - The collection and disbursement of information promotes asset visibility and economies.
- **Centralization** - Centralized capture of the information and precise movement control increases responsiveness and efficiency.
- **Decentralization** - Promotes best use of transportation opportunities within an operational environment.

The concepts of centralized control and decentralized execution are reflected in how Transportation Corps organizations and tools function.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Supply Transportation Relationship

The supply system is closely linked to Transportation Corps activities because the supply system generates the majority of transportation requests in support of combat forces.

Movement planners at all echelons must understand that supply priorities and competing demands for logistics resources affect the movement of supplies.

Supply system needs are a critical element in the planning and execution of movement control.

Movement control is closely linked to supply in the theater of operations. Most transportation requests are generated by supply.

Understanding the relationship of the supply system to the transportation system is essential to a Senior Transportation Officer's ability to effectively plan and execute movement control.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Coordination

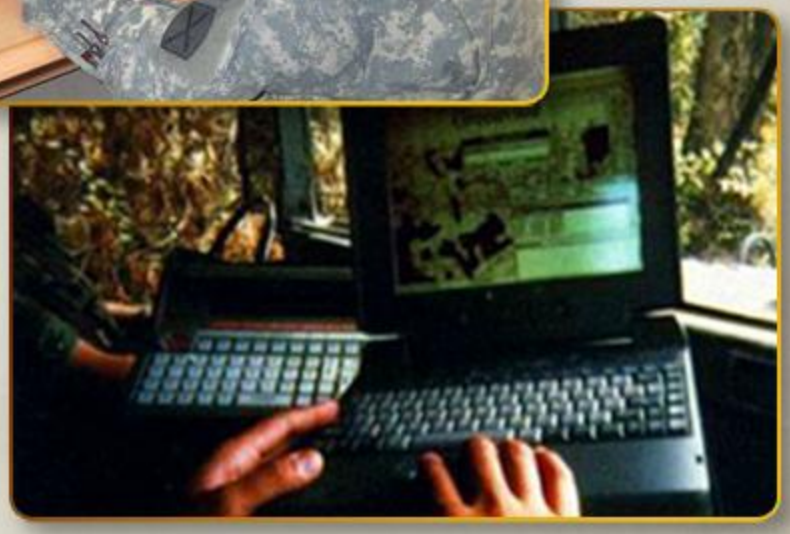
During the coordination process, movement control units interface with units and shippers to provide transportation support.

During this process, movement control units match requirements with modes based on:

- Priorities
- The principles of movement control
- Mode selection guidelines

Movement control units then task mode and terminal operators to provide support.

Reliable communications are crucial to this process.



Coordination is an important process that occurs when movement control units communicate with shippers.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

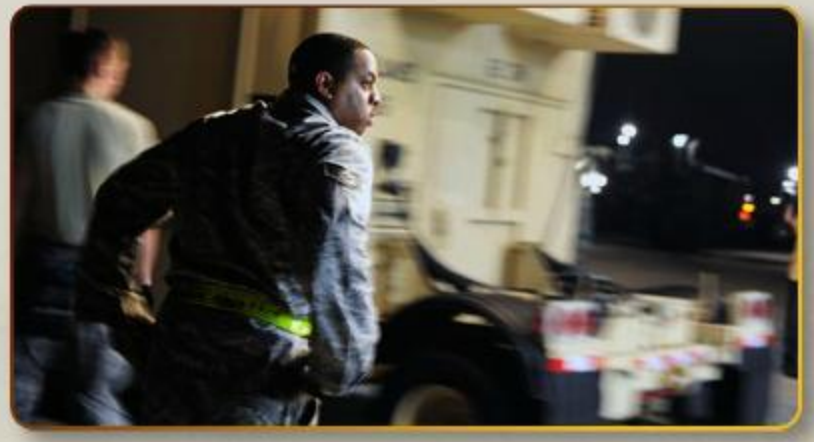
Requesting Unit

The requesting unit assigns a Priority Designator (PD) to all requests submitted to a supply support activity.

The transportation officer uses the PD entered on all materiel requisitions to determine a transportation priority for the shipment.

The information furnished by the requesting unit must be complete and accurate.

Transportation will use this information to evaluate the best means to transport the materiel.



MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Supply and Transportation Priorities

Before selecting the mode of transportation, the transportation officer converts the supply PD on the supply document to a Transportation Priority (TP) as follows:

PD	TP
01 to 03	1
04 to 08	2
09 to 15	3

This transportation priority provides general guidance on the transportation mode required.

The following chart gives the preferred mode for each TP.

TP	Preferred Mode
1	air
2	air
3	ordinary surface

The priority designator assigned by the requesting unit is the first indicator of what mode might be selected for the shipment.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Mode Selection Factors

The TP is only one governing factor guiding the selection of a mode.

In mode selection, these factors must be considered:

- TP
- Standard Delivery Date (SDD), or the Required Delivery Date (RDD)
- Weight and cube of the shipment
- Nature of the materiel
- Transportation costs
- Shipping distance
- Types of transportation modes available

The Movement Control Officer (MCO) at the Sustainment Brigade level, enforces division priorities when committing transportation assets.

The MCO seeks to resolve priority conflicts and competition by employing alternate modes and times, or requesting support from Corps.

The transportation officer considers many factors in selecting a mode.

Some of these considerations, such as the nature of the materiel, cover a broad range of factors including security, commander's intent, or special handling requirements.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Release into the Transportation System

When the materiel is released by the supply activity for shipment, it is in the transportation system upon assignment of a transportation mode by the transportation officer.

At this point, the transportation officer considers all factors and selects the transportation mode.

There are times when the transportation officer selects a mode other than the preferred mode indicated by the TP.

It is the responsibility of the transportation system to carefully weigh all factors pertaining to mode selection.

Sometimes the critical need for supplies can negate the use of a less costly transportation mode.

Journal Narration:
Airlift is a primary mode to fulfill immediate requirements.

However, after initial emergency shipments are made, ongoing sustainment can sometimes utilize more cost efficient modes such as sealift.

Journal of a Lieutenant Colonel,
BSB Commander
Haiti

The need to bring in supplies quickly to support earthquake survivors is being met by air support. The quantities needed are great.

After we get distribution channels set up and into sustainment, we can sealift these supplies.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Key Points

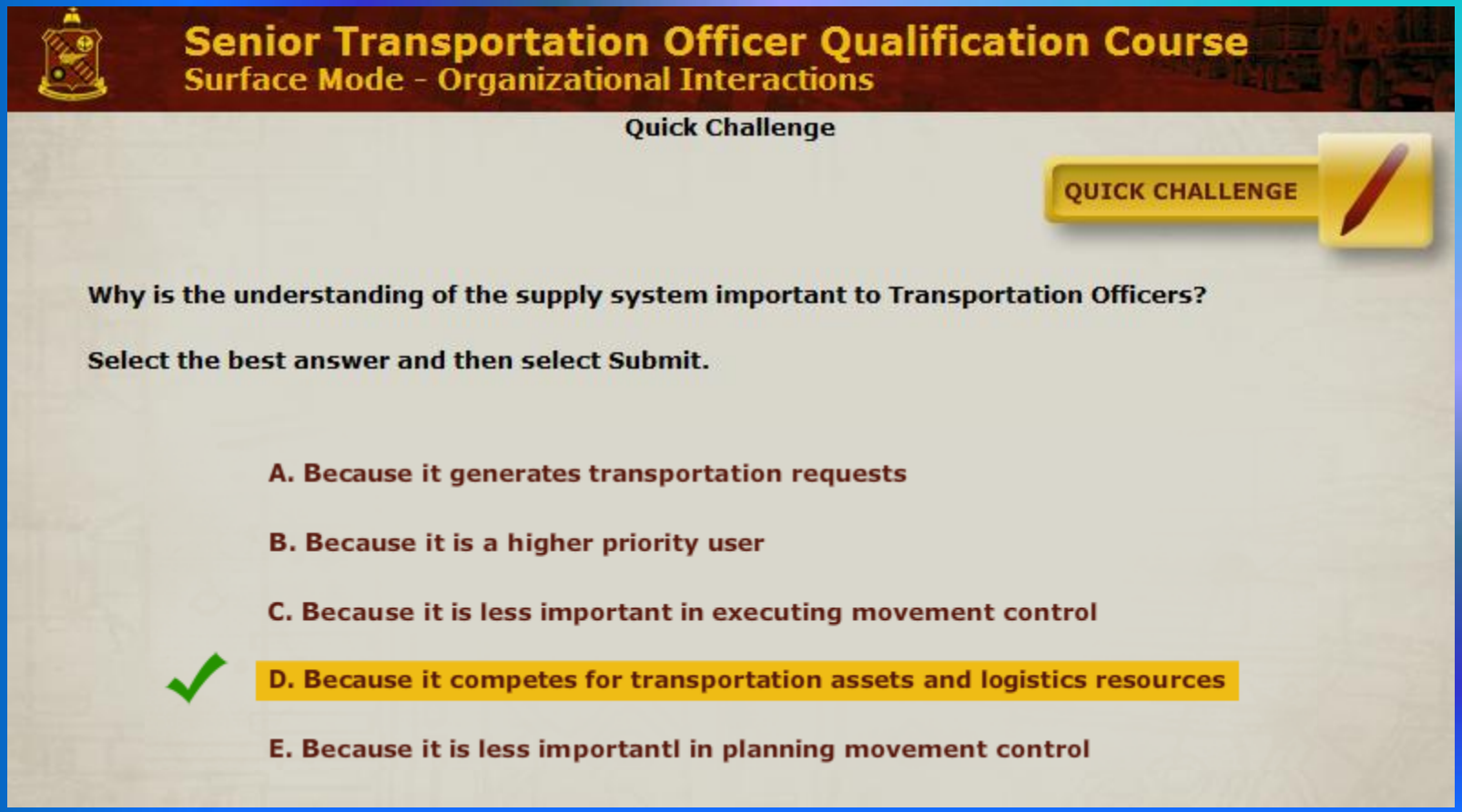
The following key points were discussed:

KEY POINTS

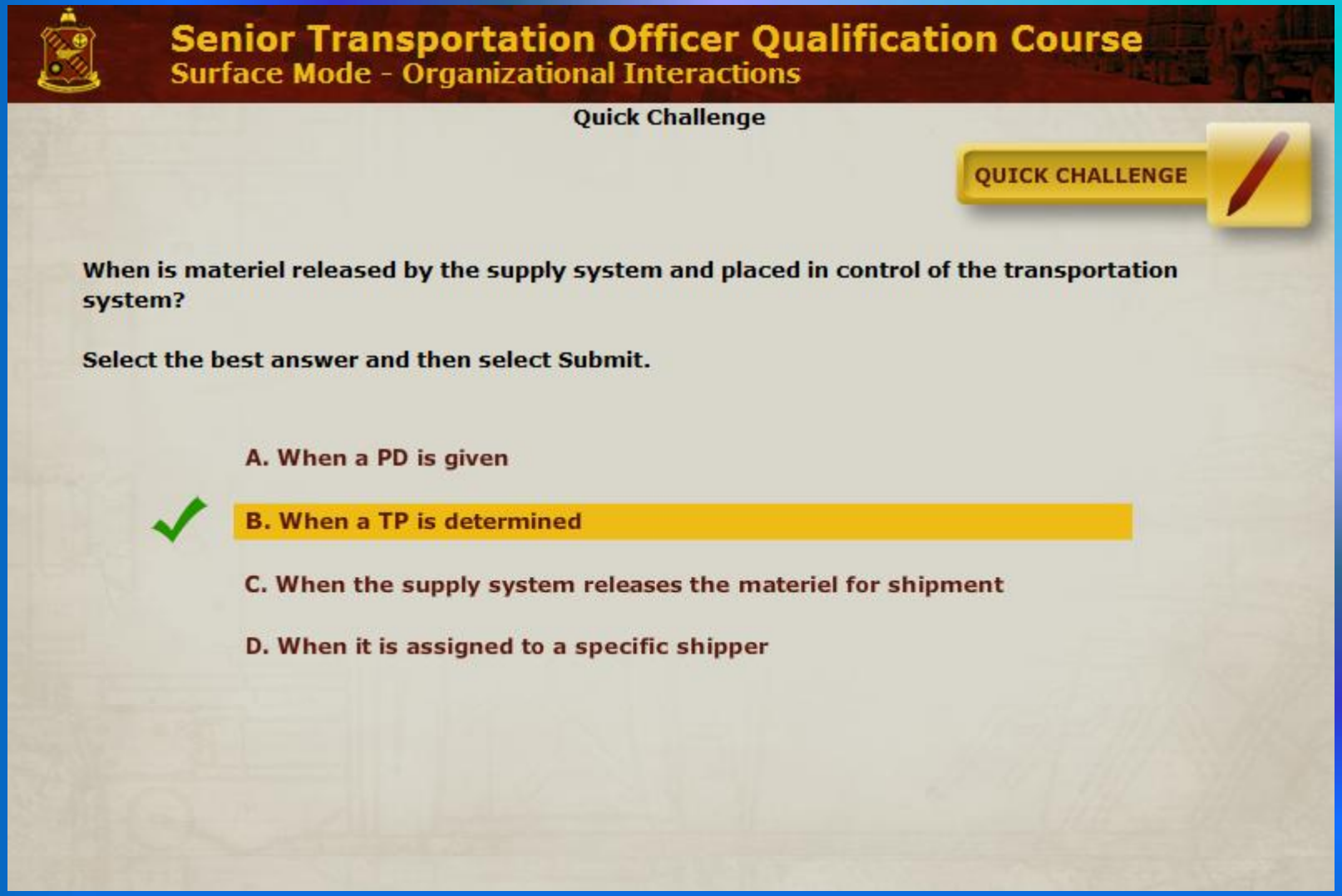
- The Transportation Corps functions support the Army's overall concepts of centralized control and decentralized execution.
- Supply is a major consumer of transportation assets and logistics forces.
- Understanding the relationship of the supply system to the transportation system is critical in planning and executing movement control.
- During the coordination process, movement control units carefully weigh priorities, principles of movement control, and mode selection guidelines to determine mode.
- Important information from the requesting unit is used to ascertain mode.
- Priority designators are converted into the appropriate transportation priority to determine the preferred mode.
- Assignment of a transportation mode places control of materiel with the transportation system.

These communications and considerations are critical in selecting the correct mode.

MODE SELECTION



MODE SELECTION



MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Automation

Sophisticated computer technologies support rapid deployment and movement of cargo through both air and seaports.

These multimodal systems are capable of rapid no-plan development and plan refinement.

Twenty-first century logistics demands the use of sophisticated computerized systems to plan, refine, and track movements of cargo and personnel.

Use of these automated systems is critical to efficient movement and deployment of assets and personnel across the globe.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Tool Types

Some automated systems are component command specific, such as the Air Deployment Analysis System and the Strategic Deployment Analysis System.

Others, such as the Joint Flow Analysis System for Transportation (JFAST), operate in the joint arena.

These tools help in the efficient utilization of organic, common user, and commercial transportation.

Automated systems can be specific to a component command or may operate in the joint area.

Some systems harvest information from other systems to aid command and control and strategic planning.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Tools and Systems

As a Senior Transportation Officer, you will need to be aware of the following systems used to plan efficient movement of cargo and personnel:

- Coordinators'-Automated Information for Movements System II (TC-AIMSII)
- Uniform Material Movement and Issue Priority System (UMMIPS) - used by supply to determine priority designators
- Joint Flow Analysis System for Transportation (JFAST)
- Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)
- Joint Operations Planning and Execution System (JOPES)

JFAST Joint Flow and Analysis System for Transportation

These are a few of the tools and systems used by the Transportation Corps and supply.

Some are used throughout the Department of Defense (DoD).

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

JOPES - TPFDD - OPLAN

Deployments supporting a major theater war and some smaller scale contingencies are planned using the Joint Operation Planning and Execution System (JOPES) deliberate planning process.

These plans help units create their Operation Plans (OPLAN) with Time-Phased Force Deployment Data (TPFDD).

Deployment planning is based on these OPLANs and related TPFDD, other contingency plans, and exercise plans.

The Join Operation Planning and Execution System

The JOPES helps units develop their operation plans and TPFDD. The TPFDD is a valuable tool and resource in deployment planning.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Key Points

The following key points were discussed:

KEY POINTS

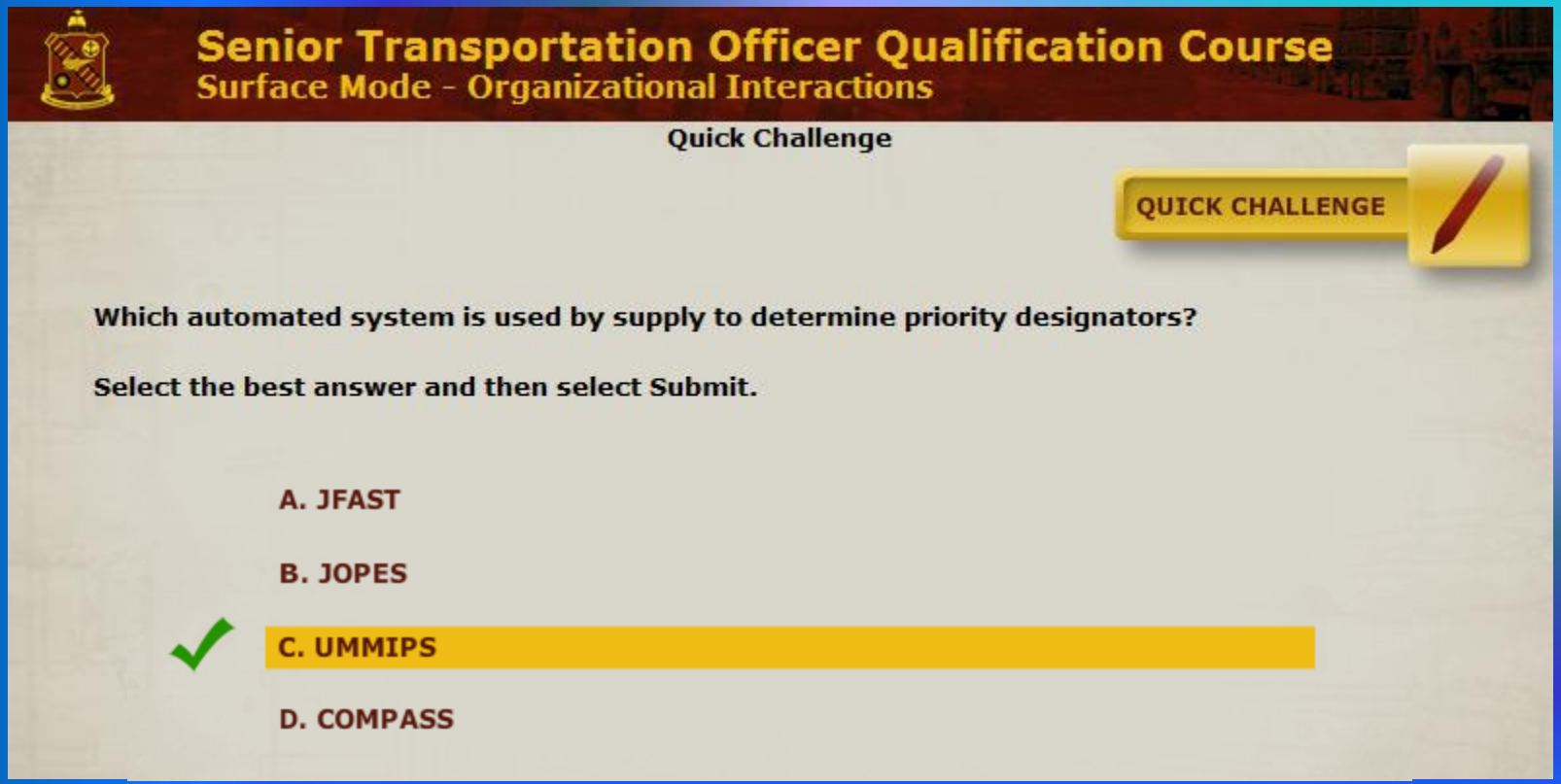
- Automated systems support planning, refinement, rapid deployment and movement resulting in an agile logistics system.
- Some automated systems are component command specific, some support joint operations, and others harvest information from other transportation systems.
- JOPES supports development of a unit's operations plan with time-phased deployment data. These OPLANS and TPFDD are used for deployment planning.
- UMMIPS is used by supply to determine priority designators.

The DoD uses automated tools to efficiently plan deployment activities.

These tools aid the efficient utilization of organic, common user, and commercial transportation.

JFAST Joint Flow and Analysis System for Transportation

MODE SELECTION



MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Centralized Control

Centralized control is critical to efficiently plan moves in both peace and war.

Automated systems allow strategic planners to have real-time information on:

- Assets available
- Cargo and personnel to move
- Valuable intelligence on travel conditions

A set of broad planning factors and assumptions are used in the early stages of motor transport planning.

These planning factors should only be used when specific data relating to the current situation is not available.

Information comes to planners from tracking devices and various systems that serve as databases.

Centralized control assimilates incoming data in a manner to efficiently plan and manage transportation.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Global Transportation Network

The Global Transportation Network (GTN) is an automated C2 system used for collecting transportation information from selected DoD systems.

It provides automated support for planning, providing, and controlling common user airlift, surface, and terminal services to deploying forces.

The Global Transportation Network is an automated system that collects information from other DoD systems.

It assists in the planning, procurement, and control of common user airlift, surface, and terminal services.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Commanders and Movement Managers

The commander's intent is central to planning as well as the assignment of a transportation priority.

Movement managers at Theater Sustainment Command (TSC), Echelons Above Corps,(EAC) and at corps and division levels develop movement programs.

These managers use automated systems to develop and refine these programs.

The viability of these movement programs during implementation is critical because of their use as an authority to commit transportation assets.

The commander's intent and movement programs are both upper level elements that influence the selection of a transportation mode.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Decentralized Execution

The Movement Control Team (MCT) under the Movement Control Battalion (MCB)/Echelons Above Corps (EAC) interfaces with the organization requesting transportation.

Although selection of mode can be made at higher levels, the supported organization validates the transportation mode selected.

Decentralization of transportation implementation begins with the Movement Control Team.

It interfaces with the organization requesting transportation to assess its needs, current situation, and validation of the transportation mode.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Automation at the Execution Level

Automated cargo handling, shipment identification, and characterization technologies feed information to decision-support systems.

These technologies operate at the execution level:

- Bar codes
- Microchip identification tags
- Weigh-in-motion systems - provide real-time information for stow plans

Automated systems such as bar codes, microchip identification, and weigh-in motion systems provide data to centralized control systems.

MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Key Points

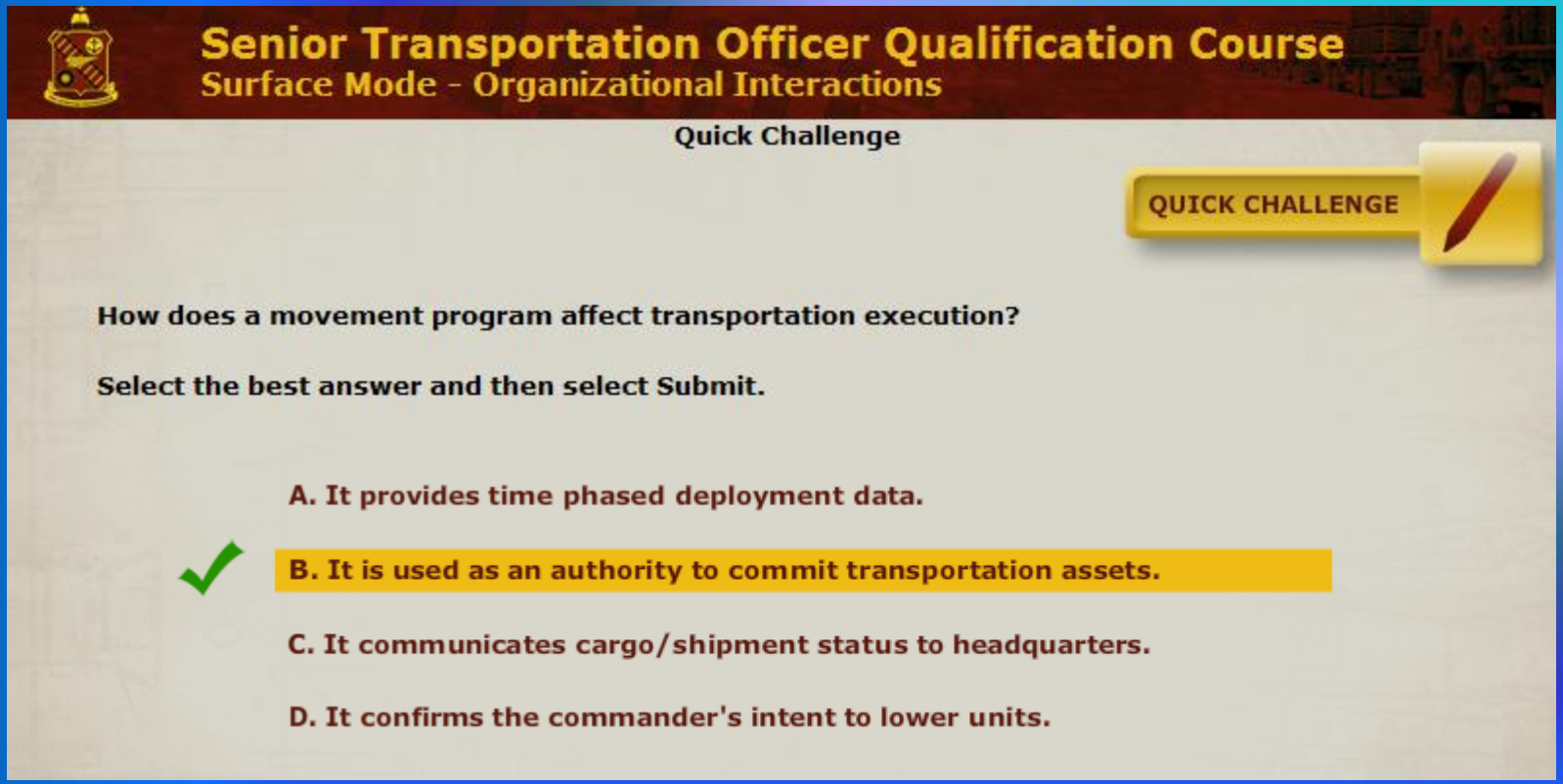
The following key points were discussed:

KEY POINTS

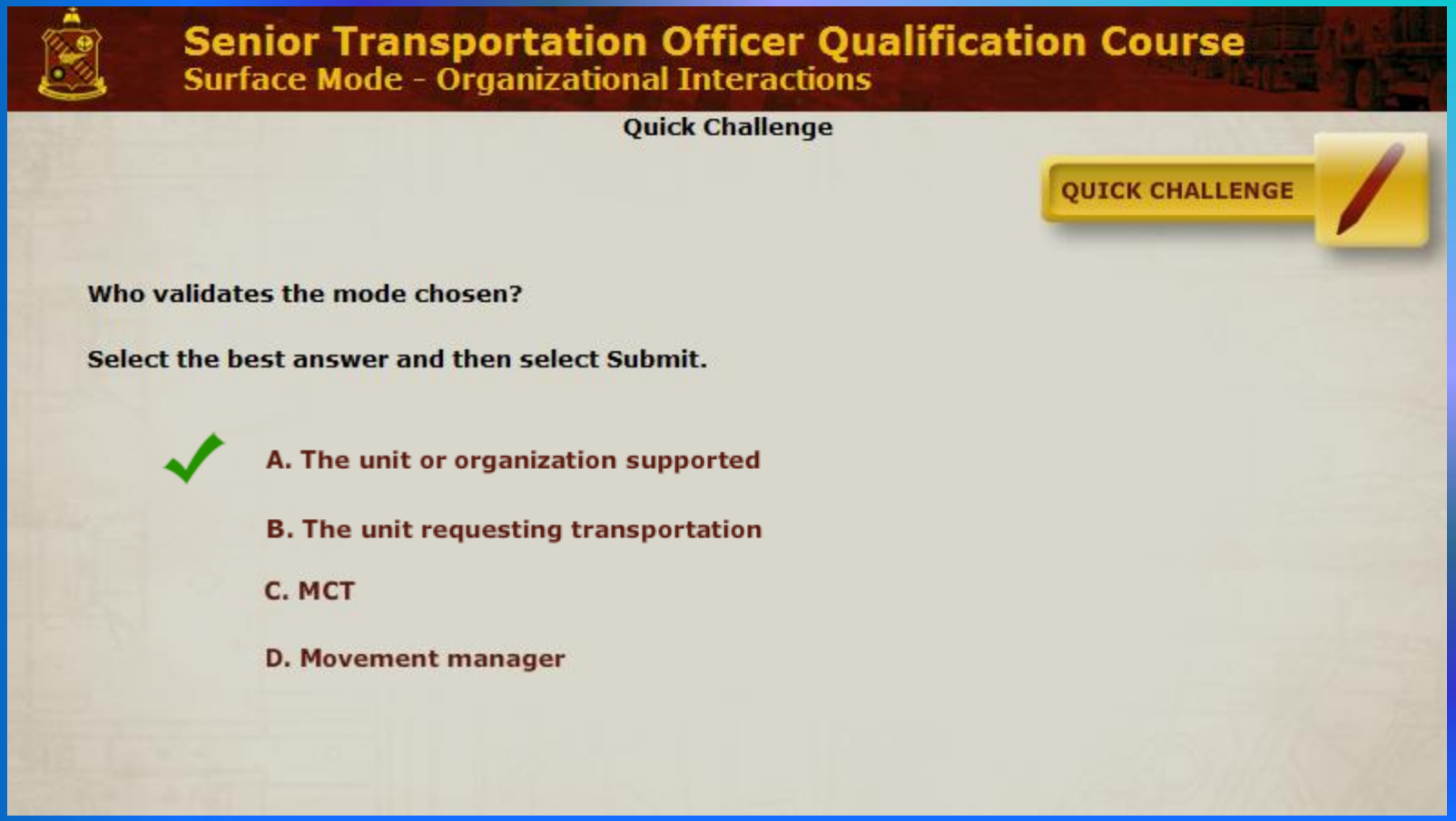
- Centralized control assimilates incoming data in a manner to efficiently plan and manage transportation.
- The Global Transportation Network is an automated system that collects information from other DoD systems.
- Upper level elements that influence the selection of a transportation mode are the commander's intent and the movement program.
- The supported organization validates the transportation mode selected.
- Automated cargo handling, shipment identification, and characterization technologies feed information to decision-support systems.

Automated centralized systems help determine the transportation mode; however, the organization supported has the last say in validating the mode chosen.

MODE SELECTION



MODE SELECTION



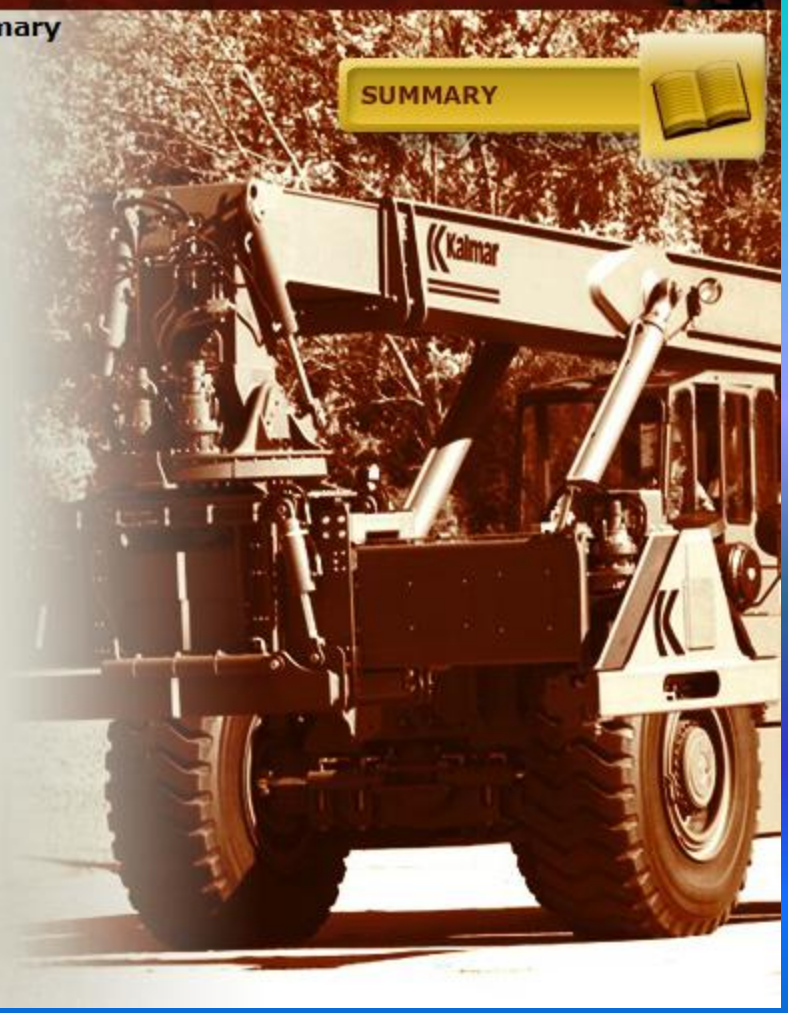
MODE SELECTION

Senior Transportation Officer Qualification Course
Surface Mode - Organizational Interactions

Summary

In this lesson, you have learned about the organizations and interactions involved in surface mode selection to include:

- Relationship with supply network
- Tools available to aid mode selection
- Those providing input regarding mode selection
- Validation of mode by supported commanders



In this lesson, you have learned about the organizations and interactions involved in surface mode selection to include: relationship with the supply network, tools available to aid mode selection, those providing input regarding mode selection, and who validates the mode chosen.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Motivator

In this lesson, you will learn about the interactions and methods used to obtain air transportation.

Air resources are limited. Often, air assets outside the Army are used.

Focused logistics demand efficient and precise use of transportation assets within the Army, across services, and with the employment of outside government resources.

Your familiarity with the current processes and organizations used to enlist different types of air support will increase your skills to develop doctrine, procedures, and policies to engage air transportation in keeping with focused logistic concepts.

Air resources are limited. Air Force and commercial air assets are consistently used to maintain an agile, focused supply/support system.

It is vital that you know about these air resources and the organizations and procedures that elicit their use.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Lead-in

LEAD-IN

As a Senior Transportation Officer, you will be engaged in the development of doctrine, procedures, and policies that direct the use of emerging technologies in transportation management.

To use air assets efficiently, you will need to know the interactions that occur within and between the Army, Air Force, and industry.

Knowledge of air capabilities and assets is required to meet the challenges of rapid deployment and agile logistics.

This knowledge will allow you to develop new methods to efficiently use air transportation in the sustainment and support of Soldiers deployed across the globe.

MODE SELECTION

This is the Main Menu for the Air Mode - Organizational Interactions lesson.

This lesson will include information about the methods and interactions needed to engage U.S. Army air transportation and common user aircraft through the U.S. Air Force.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Advantages of Air Assets

Air assets offer unique advantages over surface mode.

Airlift advantages include:

- Rapid movement of cargo, passengers, and equipment
- Resupply of critical supplies over extended distances
- Support over extended lines of communication
- Capability to overcome terrain, obstacles, congestion, and time
- Enables commands to have flexible command and control capabilities
- Capability to quickly conduct reconnaissance and observation over a larger area

Airlift is a flexible and essential element of the transportation system.

Army and Air Force airlift have unique capabilities over surface modes to rapidly move cargo, passengers, and equipment over long distances and difficult terrain.

Airlift is also capable of covering large areas. This is valuable to command and control, surveillance, observation, and supply operations.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Aviation Brigade

While motor transport is normally the primary mode to support Army forces, airlift becomes an increasingly important mode as the intensity, depth, and duration of operations increase.

The primary Army aviation unit is the aviation brigade. The Army aviation brigade is a versatile organization found at division, corps, and Echelon Above Corps (EAC) levels.

The aircraft types within an aviation brigade vary depending on the type of support needed.

While motor transport is normally the primary mode to support Army forces; when Army airlift is needed, the aviation brigade answers the call.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Army Aviation Brigade Assets

An Army aviation brigade may contain these helicopter types:

- Observation
- Attack
- Utility
- Cargo helicopters

A limited number of fixed-wing Command and Control (C2) aircraft may also be present in an aviation brigade.

Each aviation brigade is specifically configured to support the mission of its respective division, corps, or echelon above corps unit.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Air Liaison Officers

The aviation brigade at each echelon designates an Air Liaison Officer (ALO).

The ALO assists in passing advance information to the aviation mode units and provides technical advice to movement planners.

The ALO acts as a link between:

- Movement control elements
- Aviation support
- Airlift users

The ALO also coordinates the commitment of air sorties for support, based on tasking of movement control elements.

Each air brigade designates an air liaison officer.

This officer shares his knowledge and advice to movement planners and acts as a link between movement control elements, aviation support, and airlift users.

Journal of a Lieutenant Colonel,
BSB Commander

Having problems with implementation of sorties for assigned movement tasks. Talked with the ALO for the corps.

Seems like there might be a problem with the corps commander not allocating enough sorties. Corps commanders should remember to routinely allocate sorties for sufficient logistics air movement missions.

A good ALO will help coordinate and commit those air sorties when tasked to do so.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Key Points

The following key points were discussed:

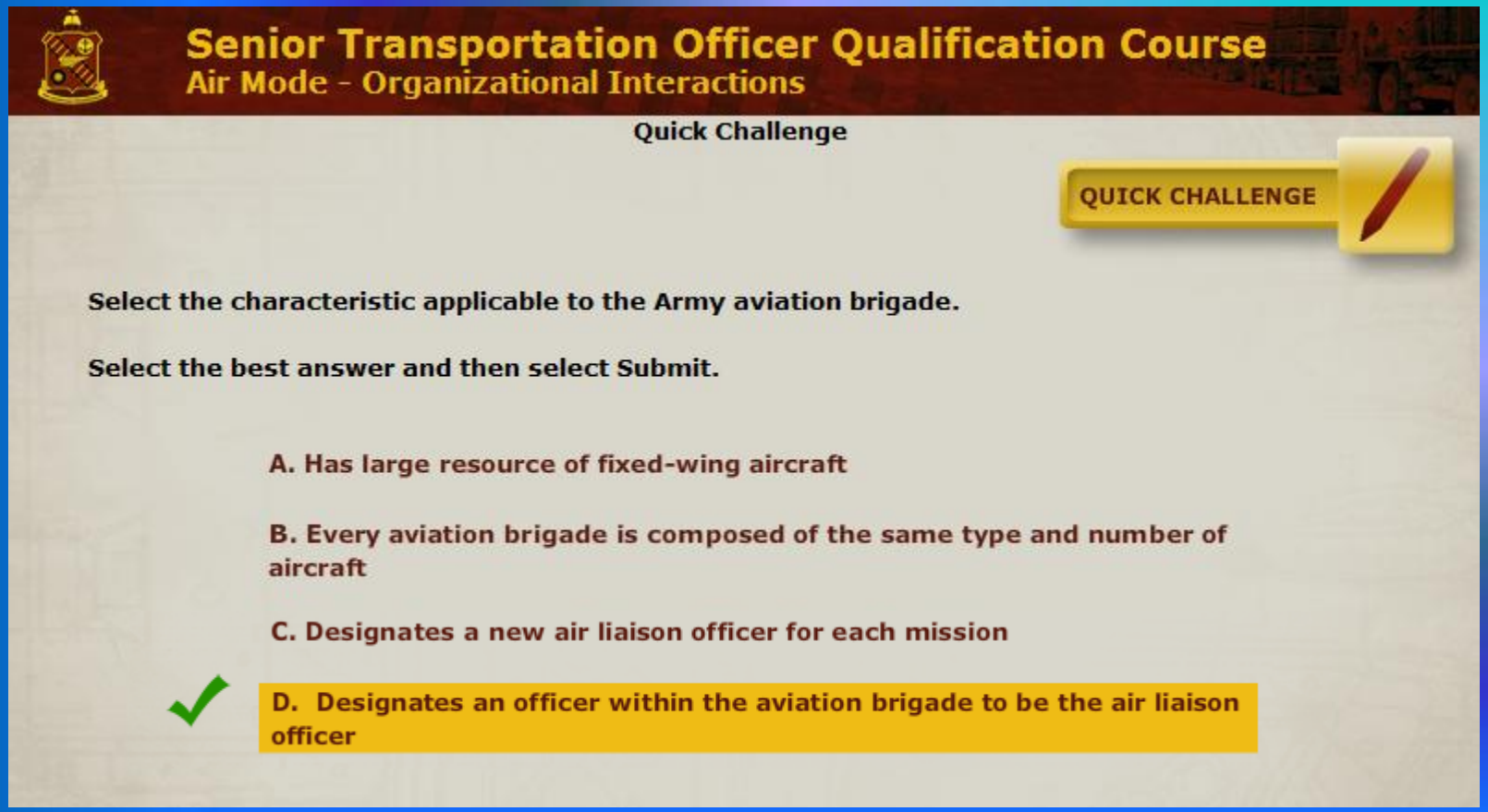
KEY POINTS

- EAC, corps, and division have aviation brigades configured to meet their specific needs.
- The ALO serves as a link and advisor to those groups planning, supporting and using Army airlift assets.

Motor transport is the primary mode to support Army forces; however, airlift becomes an increasingly important mode as the intensity, depth, and duration of operations increase.

The ALO and aviation brigade offer advice and support to enlist needed aircraft.

MODE SELECTION



MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Theater Sustainment Command

The Theater Sustainment Command (TSC) operates to sustain all elements of operating forces in theater at all levels of war.

The TSC operations support several in theater requirements including:

- Preplanned and immediate
- Personnel movement
- High priority cargo (Class IX)
- Retrograde and prepositioning
- Support to Logistics Over the Shore (LOTS) operations

If resources have been allocated, Army aircraft for TSC air movement operations can be committed by:

- Movement control units at EAC
- Movement control units at division/corps

The Theater Sustainment Command air movement operations support preplanned and immediate transportation priorities.

They support several requirements within the theater. Some of these include personnel, high priority cargo, retrograde and logistics over the shore operations.

Once airlift assets are allocated, movement control teams commit airlift for TSC operations.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Preplanned Army Requests

Air movement operations and processes vary depending on whether the request is immediate or preplanned.

During the planning process, movement planners decide if air is the most effective mode based on certain factors, such as urgency and characteristics of the cargo.

Preplanned requests:

- Requirements are identified during movement planning/programming
- Are normally 72 hours in advance
- Are routed through logistics channels

The Army has two processes to address requests for Army airlift. The process used depends on whether the request is preplanned or immediate.

For preplanned requests, transportation modes are determined during the planning process.

Normally, preplanned requests are identified during planning or 72 hours in advance and then routed through logistics channels for execution.

MODE SELECTION

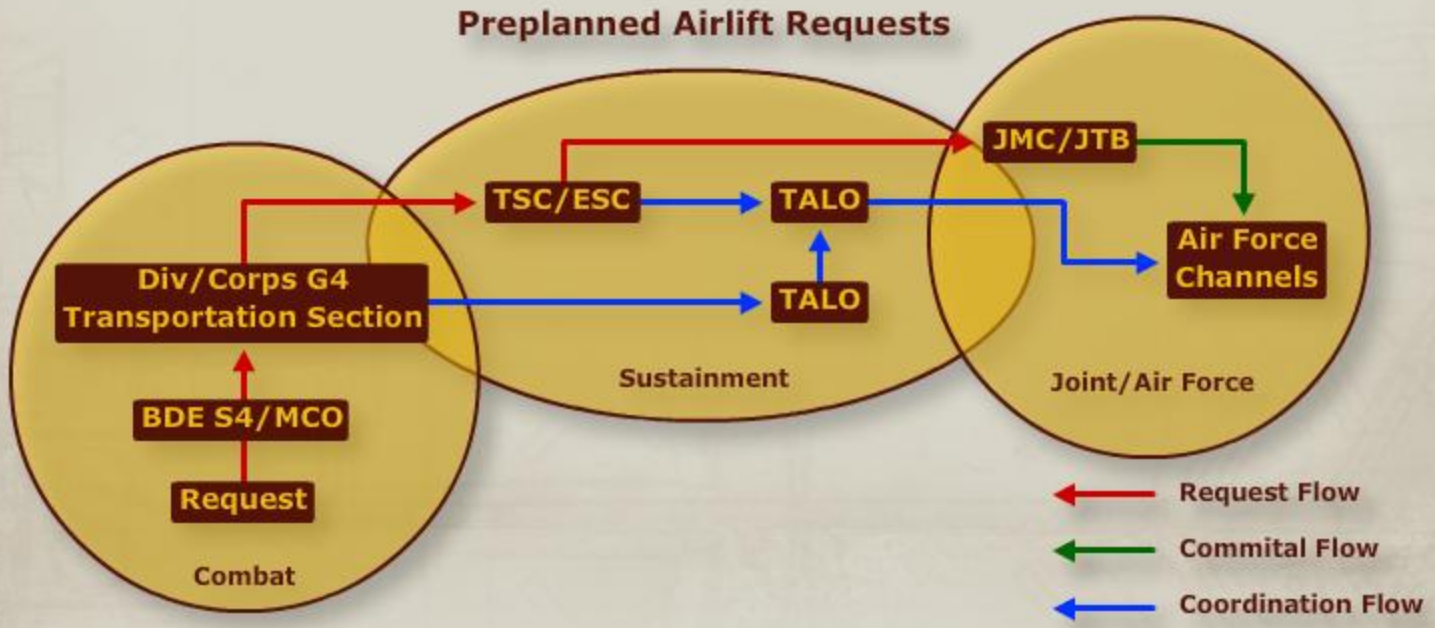
Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Preplanned Requests Received

Airlift requests are processed in a similar manner for the division, corps, and EAC.

The process is segmented into three areas:

- Allocation
- Material
- Rigging/Loading



The basic flow for processing airlift requests is similar between division, corps, and EAC levels.

The process to obtain Army airlift support is segmented into three areas: allocation, material, and rigging/loading.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Preplanned Allocation

For preplanned requests at the EAC and corps levels, the user submits the request to the Division G4.

1. Preplanned requests are forwarded to the Movement Control Battalion (MCB) as part of the planning process to obtain airlift.
2. The Support Operations Section (SPO) reviews, requests or recommends another mode. The SPO then forwards the request to the Division Transportation Section which is the validating authority at the division level. The MCB validates at the corps level.
3. The Division Transportation Section coordinates with the G3 for allocation of assets. In the corps, the MCB coordinates requirements through the Corps Transportation Officer (CTO) to obtain G3 allocation.

Army Aviation Coordination

Preplanned

If Air Assets are Allocated for CSS

Division	Corps
Allocation:	
Sust Bde S4 → *SPO G4 → G3	MCB → *SPO → G3
Material:	
Sust Bde S4 → BSB SPO	MCT → SB SPO
Rigging/Loading:	
Sust Bde S4 → BSB SPO	MCT → SB SPO

*Validation Authority

The allocation of airlift assets in the division and corps and EAC levels are very similar.

Sust Bde - Sustainment Brigade
MCB - Mission Control Battalion
BSB - Brigade Support Battalion
SPO - Support Operations
MCT - Movement Control Team
SB - Support Battalion

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Allocation process continues:

4. Once allocated, the SPO (MCB corps) will commit the brigade through the ALO to schedule the mission.
5. If assets are not available, the SPO will work with the G3 (Air), a member of the G3 battle staff, to deconflict priorities.
6. The SPO can also forward the request to the Corps Movement Control Center (MCC) to fly or to U.S. Air Force support if assets are not available.

Once requests are validated and air assets are allocated, aircraft can be committed and cargos made ready for air transport.

Preplanned Allocation (Cont.)

Army Aviation Coordination

Preplanned

If Air Assets are Allocated for CSS

Division	Corps
Allocation:	
Sust Bde S4 → *SPO G4 → G3	MCB → *SPO → G3
Material:	
Sust Bde S4 → BSB SPO	MCT → SB SPO
Rigging/Loading:	
Sust Bde S4 → BSB SPO	MCT → SB SPO

*Validation Authority

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Coordination goes on simultaneously with the respective material management center to coordinate pick-up/delivery times of material to be shipped.

Once the G3 allocates assets for logistics air movement operations, the MCO or MCT:

- Programs the requirement through the Distribution Management Center (DMC)
- Tasks the aviation brigade through the ALO in the rear command post.

Preparations for the airlifting of cargo and/or personnel commence once air assets are allocated by the G3.

Both corps and division level coordinate with their respective material management center.

Preplanned Material Preparation

Army Aviation Coordination

Preplanned

If Air Assets are Allocated for CSS

Division	Corps
Allocation:	
Sust Bde S4 → *SPO G4 → G3	MCB → *SPO → G3
Material:	
Sust Bde S4 → BSB SPO	MCT → SB SPO
Rigging/Loading:	
Sust Bde S4 → BSB SPO	MCT → SB SPO

*Validation Authority

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Preplanned Rigging/Loading

The MCO or MCT also coordinates rigging and loading with Support Operations (SPO).

Rigging and loading includes tasking truck assets to move cargo to the airfield, sling point or landing area.

The MCO at the division level, or the MCT at the corps level, coordinate with support operations to rig and load the cargo.

Army Aviation Coordination

Preplanned

If Air Assets are Allocated for CSS

Division	Corps
Allocation:	
Sust Bde S4 → *SPO G4 → G3	MCB → *SPO → G3
Material:	
Sust Bde S4 → BSB SPO	MCT → SB SPO
Rigging/Loading:	
Sust Bde S4 → BSB SPO	MCT → SB SPO

*Validation Authority

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Key Points

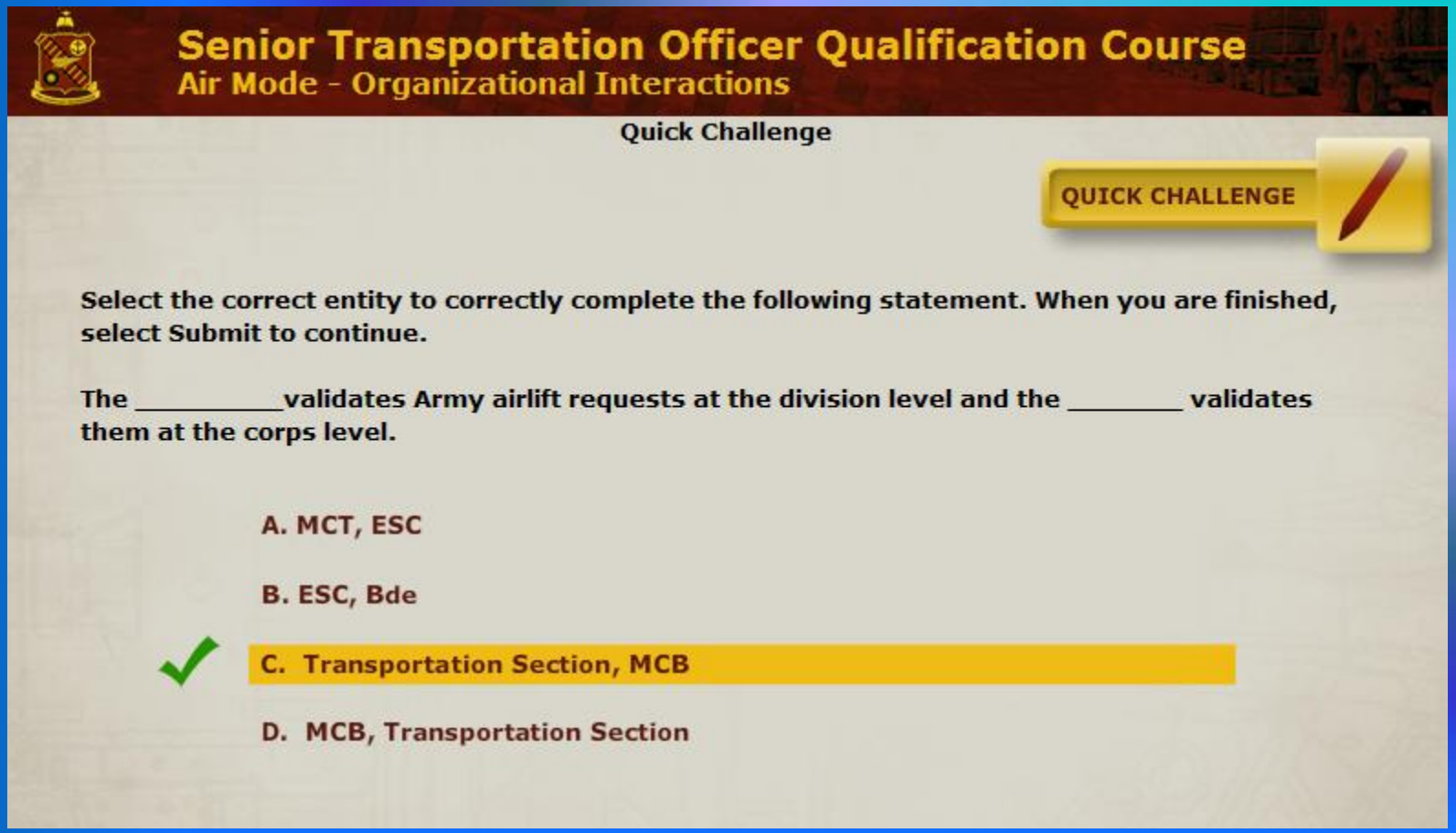
These key points were discussed:

KEY POINTS

- TSC operates to sustain all elements of operating forces in theater at all levels of war.
- The process to obtain Army airlift for preplanned transportation missions at the EAC, division and corps levels is similar.
- Preplanned Army airlift involves coordination for allocation, material preparation, and support operations.

Preplanned Army airlift involves coordination regarding allocation, material preparation and loading and rigging at the EAC, division and corps levels.

MODE SELECTION



MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Immediate Army Airlift Requests

If a request is not preplanned, it is an immediate request and movement controllers must quickly determine if air is the most effective mode.

Their decision is based on the urgency of the requirement and characteristics of the personnel, supplies, and equipment to be moved.

Immediate requests for Army airlift bypass the logistics community (corps MCB) and go directly to the G3 for allocation.

Immediate requests:

- Requirements are identified during the conduct of operations
- Are normally less than 72 hours in advance
- Are routed through operations channels
- Are also known as "EMERGENCY"

Immediate requirements are unanticipated and normally of urgent nature.

These requests must be acted upon quickly within a short time frame.

To expedite, the request bypasses the logistics community and goes directly through operations channels.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Immediate Request Review

Each level reviews and validates Army logistics airlift requests.

Requests are considered valid if forwarded to the next echelon for subsequent validation or to the mode operator for execution.

The review considers the following:

- Priority and urgency of the movement requirement
- Commander's priorities
- Competing requirements and aircraft availability
- Adequacy of other modes
- METT-TC factors
- If required, availability of Material Handling Equipment (MHE) at the destination
- Location and adequacy of origin and destination landing zones

Though the process is accelerated for immediate Army airlift requests, requests are still reviewed and validated at each level.

These important factors are considered before the process is completed and units are tasked.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

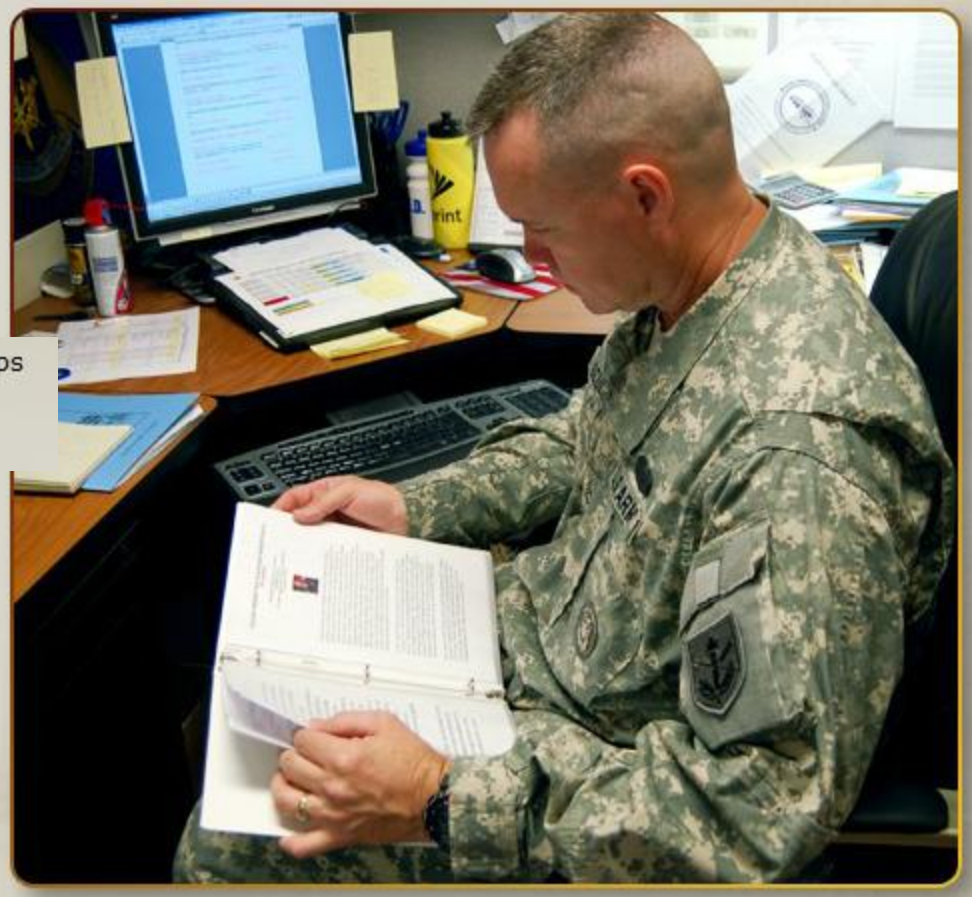
G3

Both the corps and division submit immediate requests through operational channels to the G3 to expedite allocation of airlift assets.

The G3 then:

- Allocates
- Validates
- Tasks

To accelerate the process at the division and corps levels, requests are forwarded to the G3 who allocates, validates, and tasks assets.



MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Immediate Allocation

The allocation process for immediate airlift proceeds through the division and corps, bypassing regular channels in order to expedite the process.

In divisions:

- The SPO and G3 (Air) coordinate to obtain G3 approval
- The G3 allocates aviation assets for logistics purposes and, when aviation assets are not available, validates the requests passed to corps.

In corps:

- The division G3 passes requests to the corps G3 if airlift assets have not previously been allocated for logistics missions.
- If the corps G3 cannot support the request, the G3 may validate and pass the airlift requests to the theater.
- If the G3 does not validate the requests, they are returned to the MCB, which must select alternate modes.

Army Aviation Coordination

Immediate

No Air Assets are Allocated for CSS

Division	Corps
Allocation:	
Sust Bde S3 Air → G3 Air	S3/G3 → G3
Material:	
S4 → BSB SPO	MCT → SB SPO
Rigging/Loading:	
S4 → BSB SPO	MCT → SB SPO

The G3 is the tasking authority for the Division and Corps.

Immediate air support request procedures must be responsive and flexible to respond to rapidly changing situations.

This requires intensive coordination of logistics concurrent with the allocation process.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Immediate Material and Rigging/Loading

To expedite the process, coordination for logistics, support goes on at the same time.

In both divisions and corps:

- The G3 is the tasking authority for immediate requests.
- Once allocated, assets are available for tasking and the SPO and ALO coordinate to execute the mission.

In divisions when needs exceed allocated capability, the SPO and ALO prepare requests for additional aviation support and send them to the Division Transportation Section and G3 (Air).

Coordination to prepare the materials/personnel for transport are ongoing throughout the process with feedback to the G3 should additional assets be required.

The SPO and ALO at the division and corps levels, work closely to accelerate logistical elements.

Army Aviation Coordination

Immediate

No Air Assets are Allocated for CSS

Division	Corps
Allocation:	
Sust Bde S3 Air → G3 Air	S3/G3 → G3
Material:	
S4 → BSB SPO	MCT → SB SPO
Rigging/Loading:	
S4 → BSB SPO	MCT → SB SPO

The G3 is the tasking authority for the Division and Corps.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Key Points

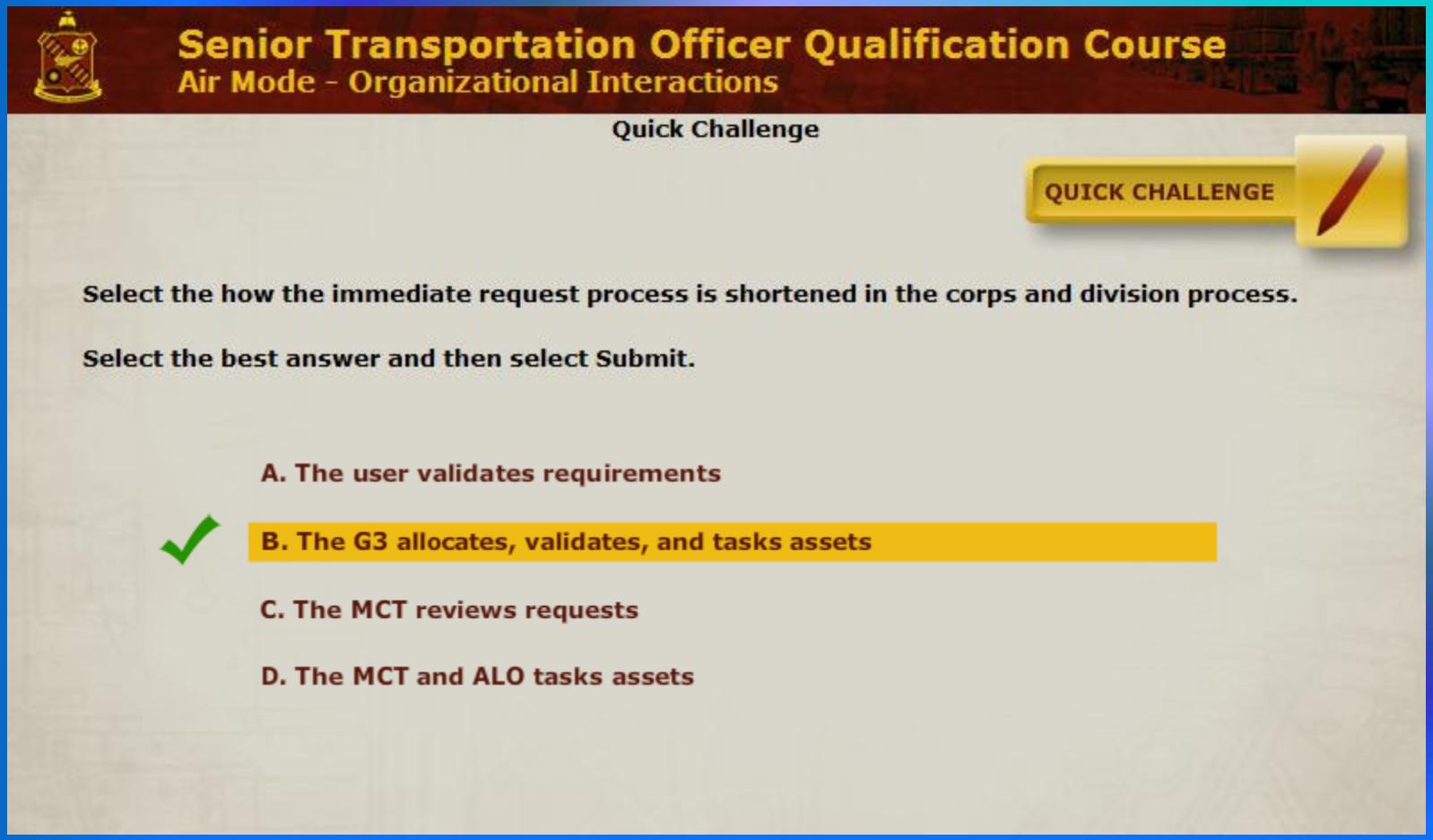
KEY POINTS

The following key points were discussed:

- Immediate requests bypass the logistics community and go directly through operations channels.
- The G3 at the corps and division levels is forwarded requests, then allocates, validates and tasks assets.
- During the process, logistical coordination is ongoing and involves the MCT and ALO at the corps and division levels.

Immediate requests for Army airlift are expedited by bypassing the logistics community and proceeding to operational levels for allocation, validation, and coordination.

MODE SELECTION



MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Air Mobility Command

The U.S. Air Force (USAF) provider of airlift is the Air Mobility Command (AMC).

U.S. Army requests for USAF support are fielded through the AMC via the U.S. Air Force C2 Agency for execution.

The AMC:

- Engages both inter-theater and intra-theater airlift support.
- Supports:
  - Strategic deployment
  - Sustainment operations
  - Other missions such as aeromedical evacuation
- Operates some CONUS and theater aerial ports
- Coordinates with private industry to procure aircraft through the Civil Reserve Air Fleet (CRAF) and contracts with commercial carriers

Just like the army is the proponent for line haul operations in the theater, the U.S. Air Force is the air proponent.

The U.S. Air Force Air Mobility Command provides the airlift for strategic deployment and sustainment operations.

U.S. Army requests for U.S. Air Force support are fielded through the AMC via the U.S. Air Force C2 Agency for execution.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Centralization

The concepts of centralized control and decentralized execution are reflected in the process to obtain U.S. Air Force support.

Each echelon has an Air Force Officer serving as a Tactical Airlift Liaison Officer (TALO).

This officer is in constant contact with the USAF C2 Agency to provide early warning that an Army request for Air Force support is being processed.

The TALO is a focal point and aware of the current and future requirements of the supported force as well as the capabilities available to meet the requirements.

The TALOs line of communication with the USAF C2 Agency supports the concept of centralized information.

The TALOs line of communication with U.S. Air Force tasking agents allows assets to be poised to address upcoming requests.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

TALO

The TALO works at the TSC, division or higher rear command post G4 section to:

- Facilitate coordination of cargo aircraft
- Maintain information on runway availability
- Maximize cargo handling capability
- Know the location of brigade medical treatment facilities and landing area

Requests for use of Air Force fixed-winged aircraft for sustainment/resupply require coordination between the MCB and the theater airlift liaison officer.

Airlift providers may be the Army, Navy, Air Force, Multinational Forces (MNFs), host nation military, or commercial aircraft.

TALOs are a valuable source of support. Army leaders who use their support will increase efficiency and maximize use of airlift opportunities.

Journal Narration:
The successful Senior Transportation Officer will develop a good report with the unit's Tactical Airlift Liaison Officer.

Exploring this relationship can produce winning results for all.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Decentralization

Though planning is centralized, decentralized execution is the cornerstone to effectiveness in a changing operational environment.

A process that gives the theater combatant commander the final say in prioritizing and granting the request supports the concept of decentralized execution. This enhances flexibility to prioritize support and accomplish the mission.

The theater combatant commander dictates the prioritization of airlift requests within the theater.

This is consistent with the concept of decentralization in the execution of support activities.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Working with the USAF

Unlike TSC air movement with organic assets, USAF support requires longer lead times to plan and coordinate for several reasons:

- Personnel and equipment need to be moved to the airfield.
- Personnel and cargo must be prepped and marshalled, and load plans prepared
- Arrival/departure airfield control groups are required.
- The theater combatant commander's agent, Joint Movement Center (JMC) or Joint Transportation Board (JTB), is the final validator not the Army.

Though the U.S. Air Force has a variety of different aircraft, procurement of these assets is a more lengthy process than engaging Army organic assets.

Journal Narration:
Awareness of deficiencies in the Army's use of Air Force airlift is the first step in resolving them.

MODE SELECTION

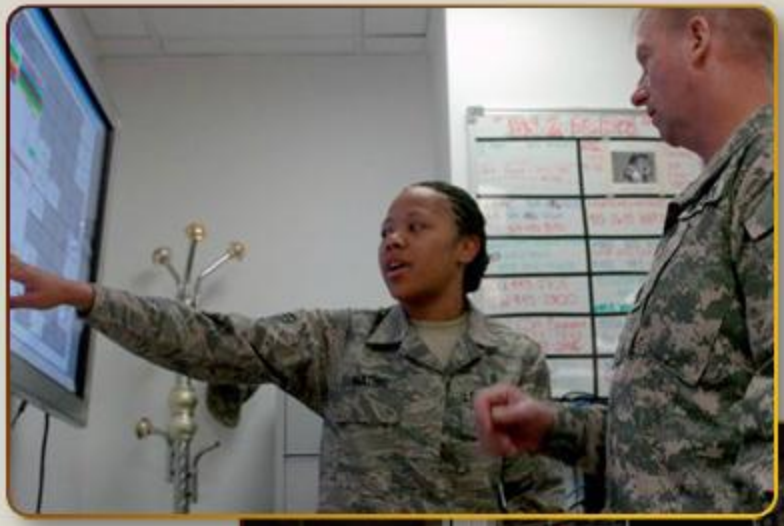
Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Army / USAF Validation

Requests to engage USAF assets must be validated by the Army and Air Force.

These are typical interactions when a request is made:

- The Army Service Component Command (ASCC) validates and prioritizes all Army airlift and airdrop requests usually through a designated TSC.
- The Army validated request is sent to the JMC.
- The JMC aligns requests with other theater priorities according to the theater combatant commander's priorities.
- The theater combatant commander may establish a Joint Transportation Board (JTB) to resolve conflicts between the Service components regarding airlift.
- After the JMC prioritizes and validates the request, it becomes an airlift/airdrop requirement.



Typically, the TSC is the validator for the Army. The combatant commander's agent at the joint level validates the request for the Air Force.

From this point, it proceeds through U.S. Air Force channels for execution.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Tasking

Upon validation and prioritization with other theater activities, the request is ready to be tasked.

These are typical post validation interactions needed to execute a request:

- The JMC tasks the Air Force component commander who passes the tasking to the USAF C2 agency through the U.S. Air Force component commander.
- The USAF C2 agency then tasks an Air Force unit to execute the mission for the Army through the Wing Operations Center (WOC).

As the tasking flows through U.S. Air Force channels, its final destination is the Wing Operations Center.

This is the central nerve center where information coalesces to real time availability of aircraft to fulfill transportation missions.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

USAF Delivery Modes

Generally, Air Force airlift and airdrops are designated as common-user airlift.

As such, it supports the air movement requirements of all Service components assigned to the theater of operations including the Army.

Three delivery modes or systems used by the Air Force are:

- Airland - most preferred
- Airdrop - Parachute or free drop
- Extraction - Low Altitude Parachute Extraction System (LAPES)

Three types of delivery modes or systems are used by the Air Force: Airland, Airdrop, and Extraction.

Airland is the most preferred method as it minimizes damage to material and eliminates recovery from drop zones.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Logistical

USAF has two types of logistical missions, preplanned and immediate.

The following are common types of preplanned missions:

- Scheduled missions are usually based on frequency or requirements
- Channel missions are established routine/schedules in the theater
- The express service (AMX) is for high priority requirements originating in the continental U.S. with a theater destination.
- Opportune (space available)

Immediate missions include emergency one time requests which are unprogrammed or with short notice.

There are two types of U.S. Air Force airlift missions, preplanned and immediate.

Preplanned requests include regular shipments in and out of theater as well as express services for high priority items.

Immediate requests include emergency requests and one time unprogrammed requests.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Airdrop Missions

There are two types of airdrop missions, assault and resupply.

Assault mission airdrops may involve:

- Personnel
- Heavy equipment

Resupply airdrop missions commonly utilize some form of container delivery system.

Airdrop delivery may be used for assault or resupply missions.

Different cargo configurations can be dropped based on the aircraft and mission requirements.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Aeromedical Evacuation

Aeromedical Evacuation falls under the USAF Air Mobility Command. It uses its own assets and augments them as needed with strategic and civilian airlift.

Aeromedical transport is a critical theater mission whose responsibilities are as follows:

- Move casualties to higher echelon medical care
- Stabilize patient, not treat
- Interface as needed with strategic airlift system

The TALOs knowledge of brigade medical treatment facility locations and landing areas is a valuable planning aid for emergency aeromedical transport.

The USAF Air Mobility Command provides aeromedical evacuation using strategic airlift and civilian resources as needed to augment its own Aeromedical evacuation fleet.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Key Points

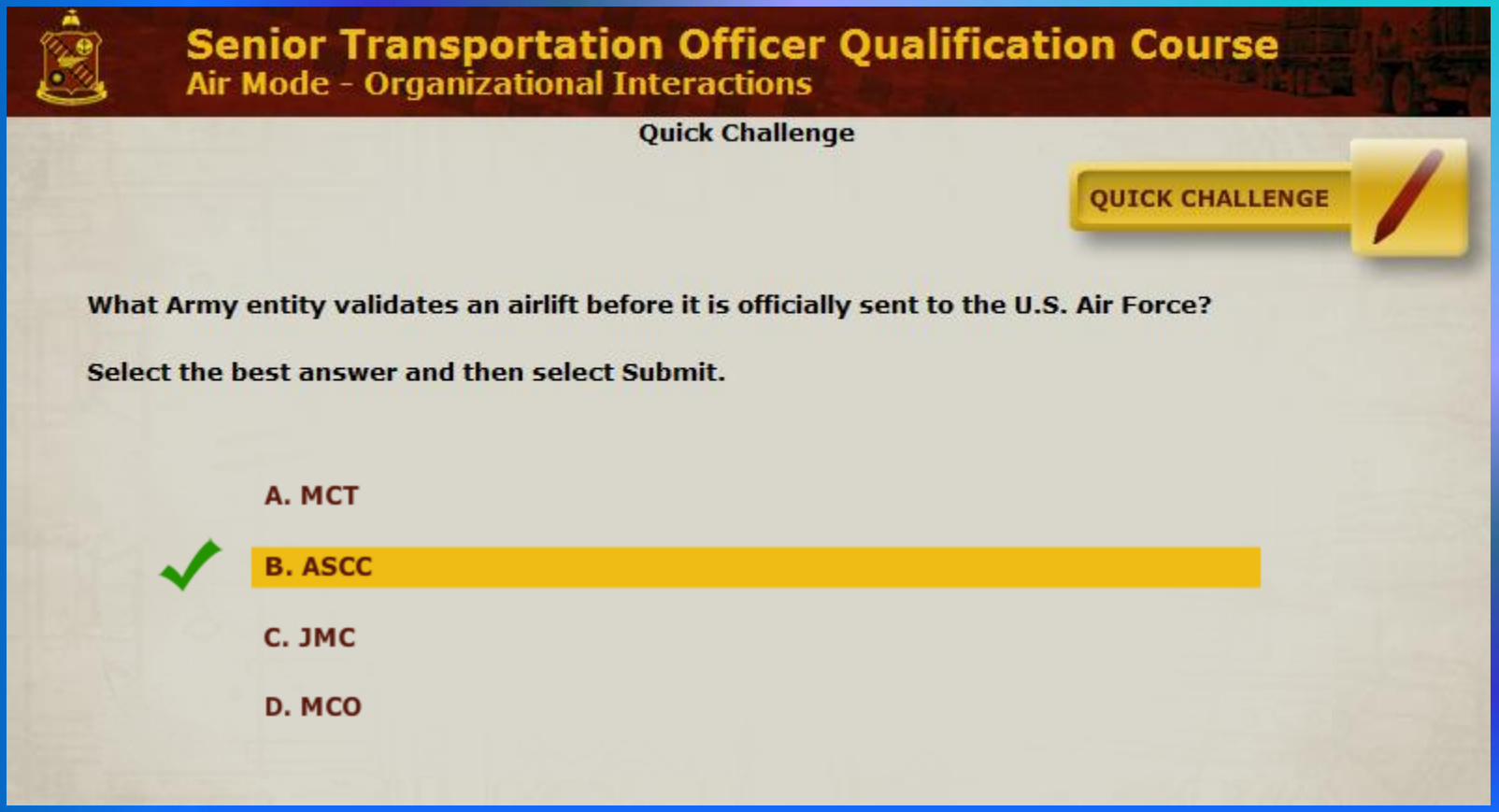
KEY POINTS

The following key points were discussed:

- The Air Force's AMC fields airlift requests
- TALOs work at division or higher rear command posts to aid air coordination and channel information on upcoming requests to the U.S. Air Force C2 Agency.
- The ASCC validates the airlift for the Army usually through the SPO
- The theater combatant commander's agent at the joint level has the final validation.
- USAF has two delivery modes Airland and Airdrop

These key points were discussed, the AMC, TALOs, Army validation, Air Force validation, and U.S. Air Force delivery modes.

MODE SELECTION



MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Air Force Airlift

Once all factors are considered, including the additional time needed to engage USAF assets, a request is initiated.

Air Force airlift requirements can begin at any level as:

- A request for Air Force airlift or airdrop
- A request for transportation that the servicing Movement Control Team or Movement Control Battalion determine is best met using airlift or airdrop

Requests for airlift can begin at any level; this includes missions that movement managers determine are best met by air mode.

MODE SELECTION

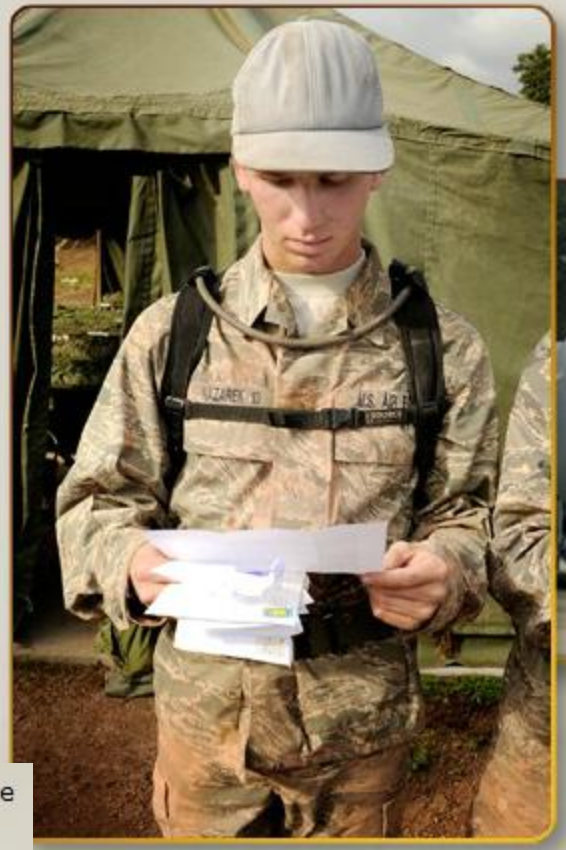
Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Preplanned USAF Request

Preplanned airlift missions are based on known or projected requirements and are programmed in advance per command directives.

They include programmed one-time requirements or regular routine airlift of:

- Personnel
- Cargo
- Mail
- Courier material



Preplanned requests for U.S. Air Force airlift are those that are programmed in advance.

Preplanned airlifts move personnel, cargo, mail, or courier materials that are one-time deliveries or routine.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Time for Preplanned

The amount of time required to coordinate preplanned airlift is established by the Air Force component

Time required is based on:

- Operational requirements
- The capability of available airlift as apportioned by the theater combatant commander

Preplanned airlift requests are validated through movement control channels.

The amount of time needed to coordinate a preplanned airlift is largely shaped by the USAF theater combatant commander.

Since more time is available to engage preplanned airlift, USAF request validations go through movement control channels.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

As the request moves through the division, corps, and EAC, the TALO plays an important role as an advisor and coordinator.

TALOs at each level coordinate and communicate the status of the request up the chain.

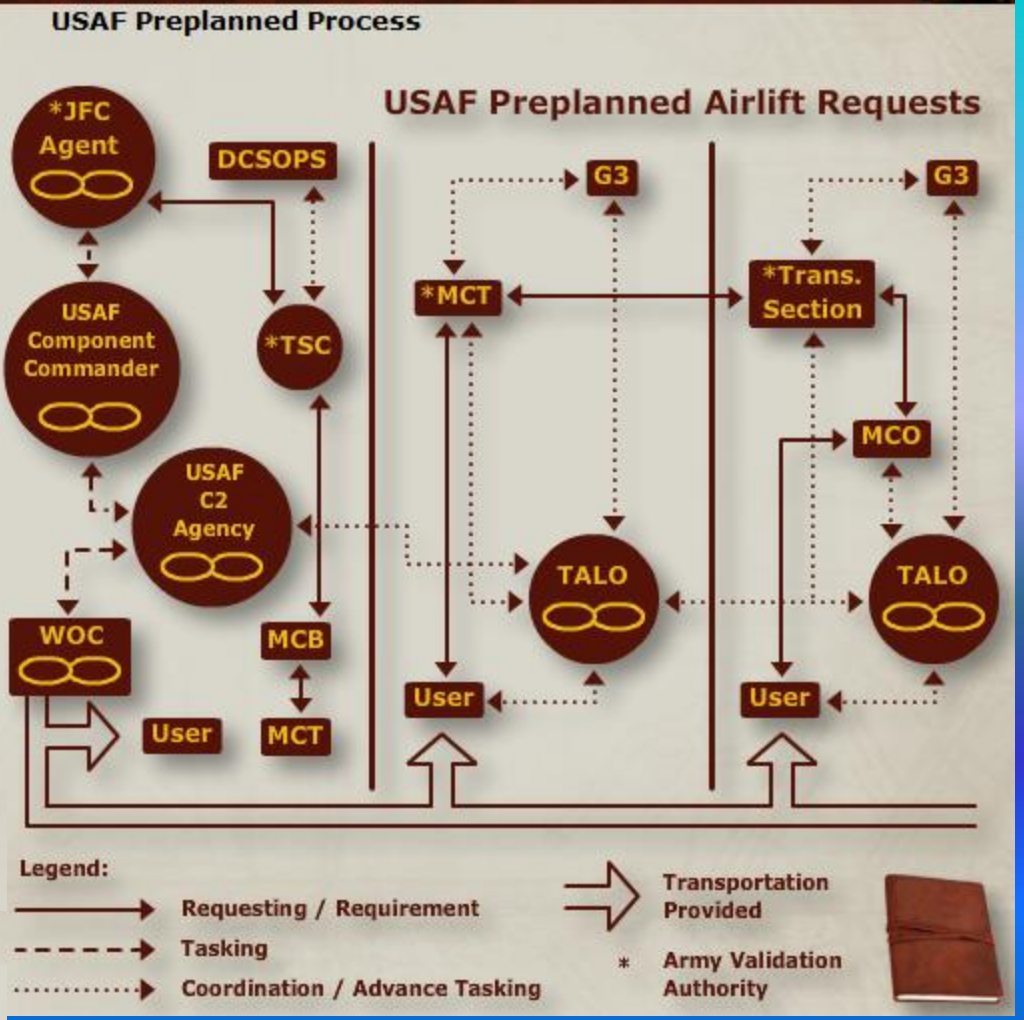
As the request moves from one level to the next, it is validated by these Army entities:

- Division Transportation Section at division level
- MCT at corps level
- TSC at EAC

After validation by all the above, the request is forwarded to the Joint Force Commander (JFC) agent for the theater combatant commander.

The Division Transportation Section, MCB and SPO all coordinate and consult with the liaison officer regarding the request.

Journal Narration:
Awareness and utilization of in-theater organizations, can provide valuable information and support in addressing transportation challenges.



MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Immediate requests validations are expedited through command channels.

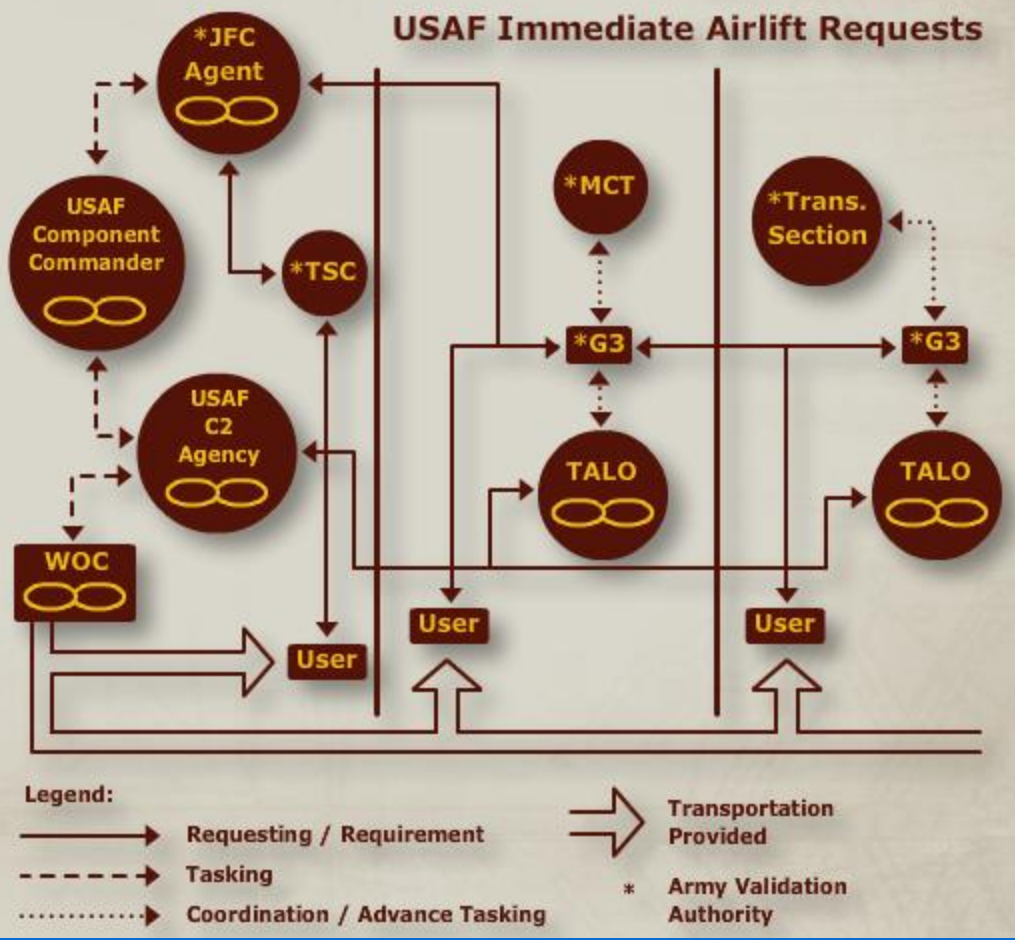
The TALO, attached to the lowest echelon closest to the requesting command, notifies the USAF C2 agency directly of the impending request through an advance notification net.

Coordination between the S3/G3 and S4/G4 ensures that movement control channels are kept current on the airlift request status.

Immediate requests for USAF airlift, as for Army immediate airlift requests, go through command channels, omitting logistical organizations.

The TALO attached to the lowest level requesting the airlift communicates directly with the USAF C2 agency.

Immediate USAF Request



MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Validation and Execution

The USAF C2 agency executes validated immediate airlift requirements by directing an alert sortie to launch or, if the urgency of the situation warrants, by diverting a mission in progress.

Immediate airlift requests are supported only if the Army and the theater combatant command agent validate them.

Immediate requests, like preplanned requests, must be validated by both the Air Force and the Army.

The execution of immediate requests may use its own sortie or may require the diversion of another aircraft.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Emergency

Emergency requests are special types of immediate requests.

Emergency missions are the highest priority established by the combatant commander.

Emergency requests are for requirements that are critical:

- To accomplish the tactical mission
- For survival of personnel

The validation procedure for emergency requests is the same as for immediate requests.

The validation procedures for emergency and immediate requests are the same.

The difference in emergency requests is their higher priority.

MODE SELECTION

Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Key Points

The following key points were discussed:

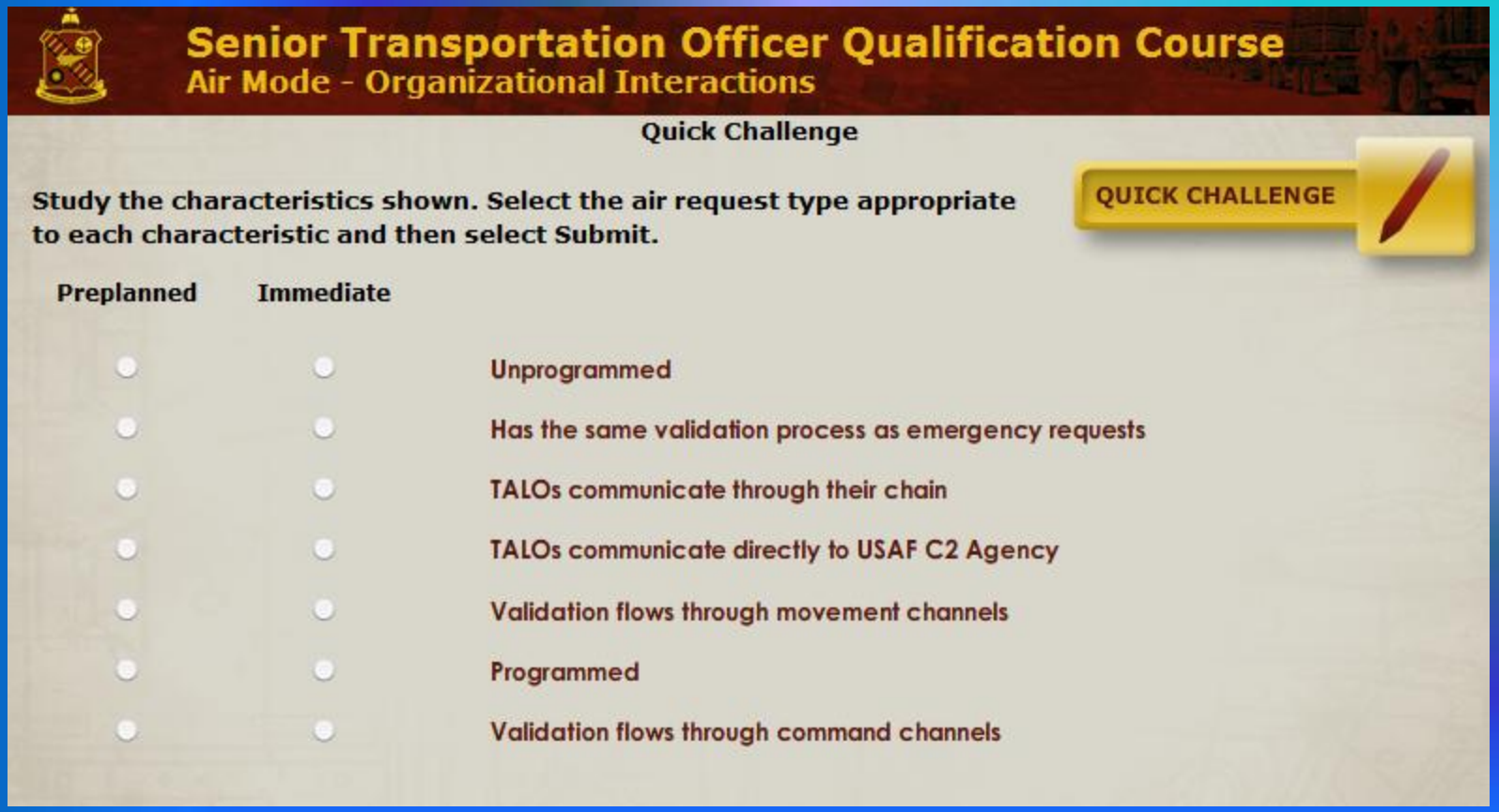
- Preplanned requests are programmed one-time requirements or regular routine airlifts.
- Preplanned requests go through the movement control chain.
- Immediate requests are unprogrammed, short notice, one-time airlifts.
- Immediate requests bypass the movement control chain and are processed directly through command and operations channels.
- Emergency requests follow the same validation process as immediate requests.

KEY POINTS

Preplanned requests for USAF airlift go through movement control channels.

Immediate and emergency requests are one-time unprogrammed requests for airlift that bypass the movement control channels and are coordinated directly through command and operations channels.

MODE SELECTION



MODE SELECTION

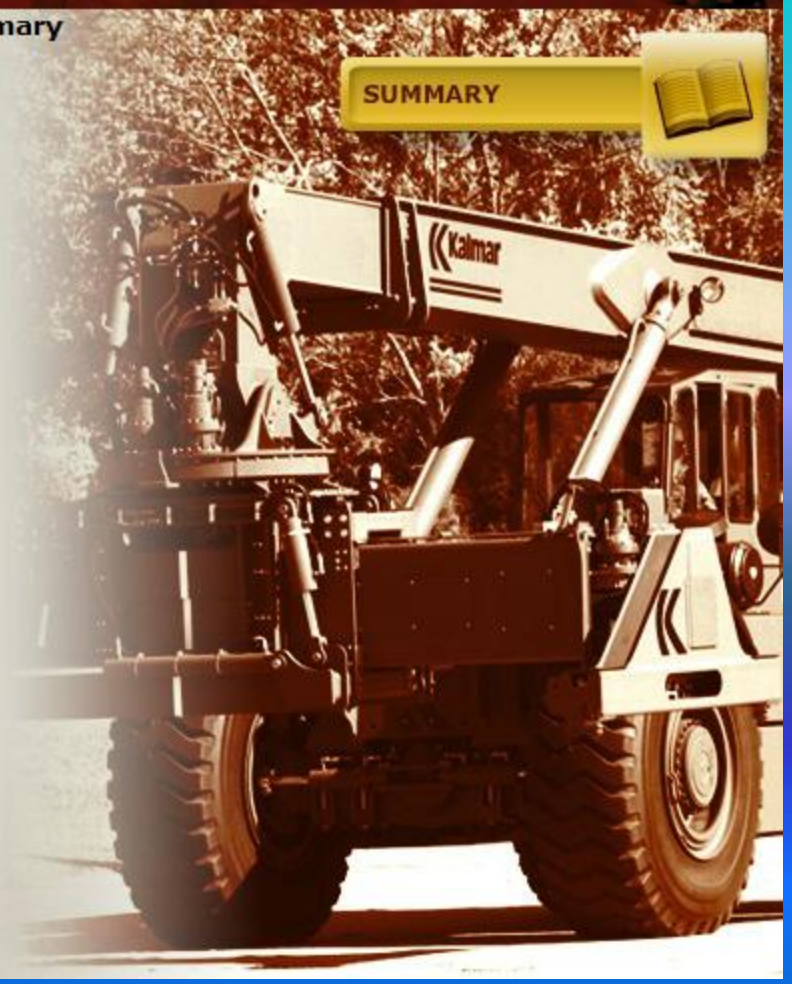
Senior Transportation Officer Qualification Course
Air Mode - Organizational Interactions

Summary

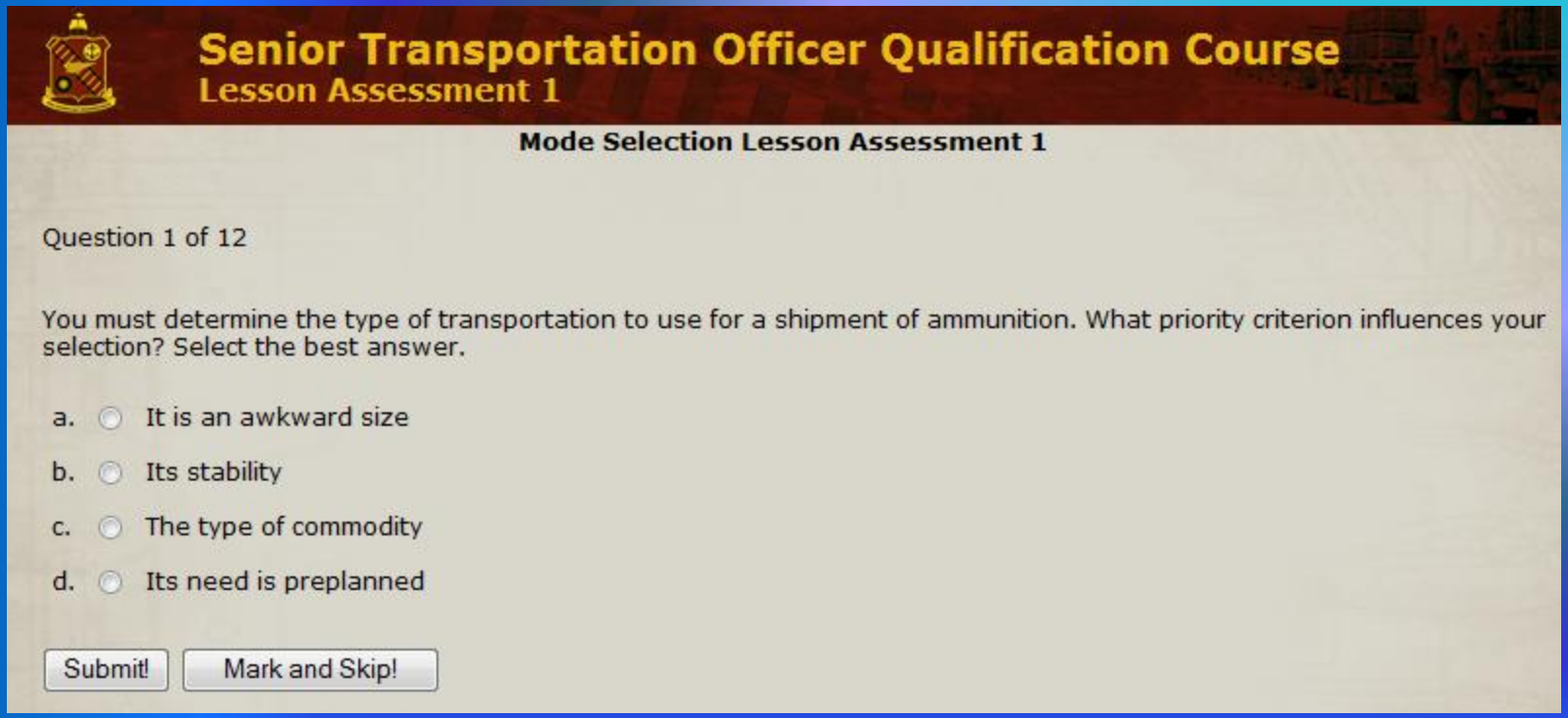
In this lesson, you have learned the organizational interactions and processes involved to enlist airlift support from:

- U. S. Army
- U.S. Air Force
    - Commercial

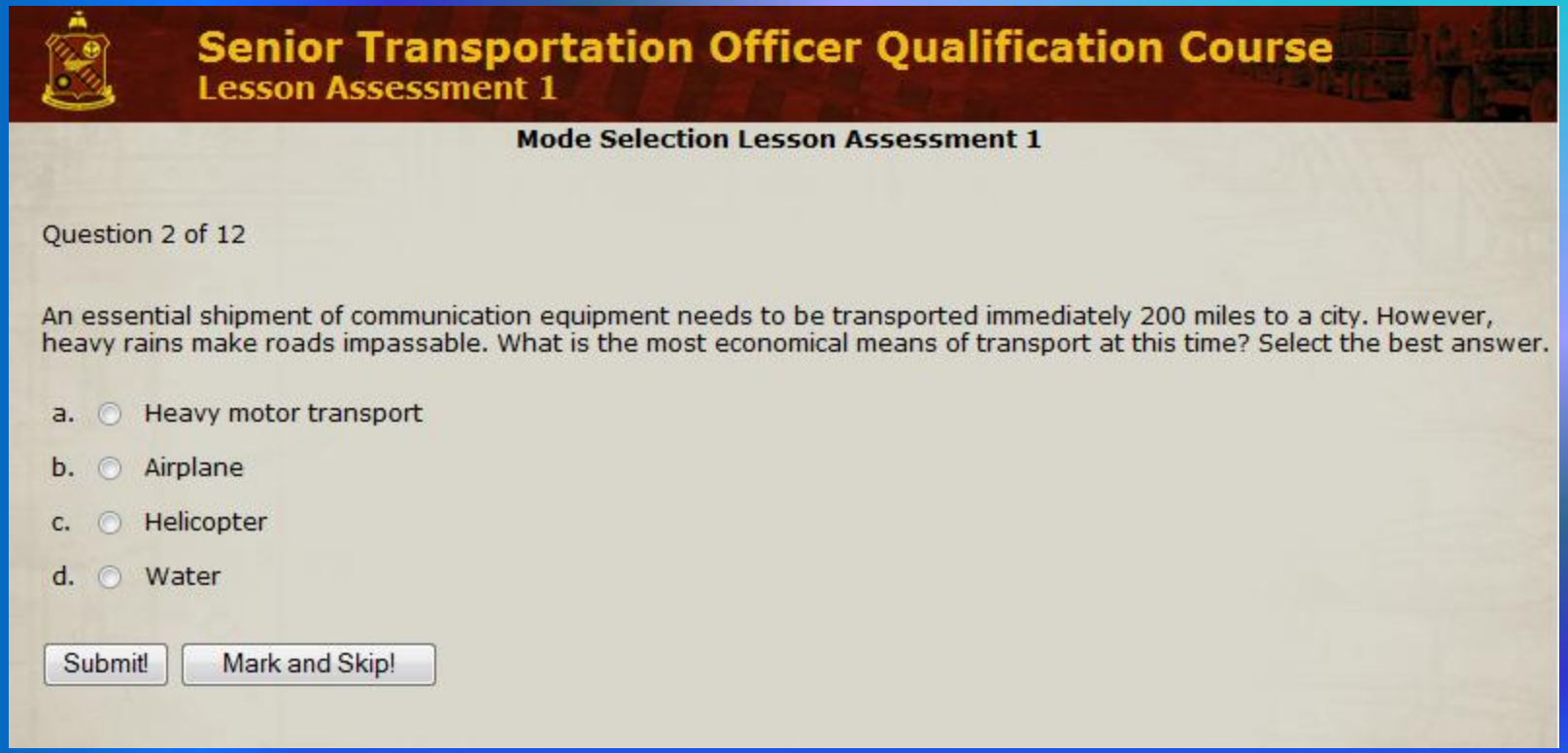
In this lesson, you have learned about the organizational interactions and processes used to enlist Army, Air Force and commercial air transportation.



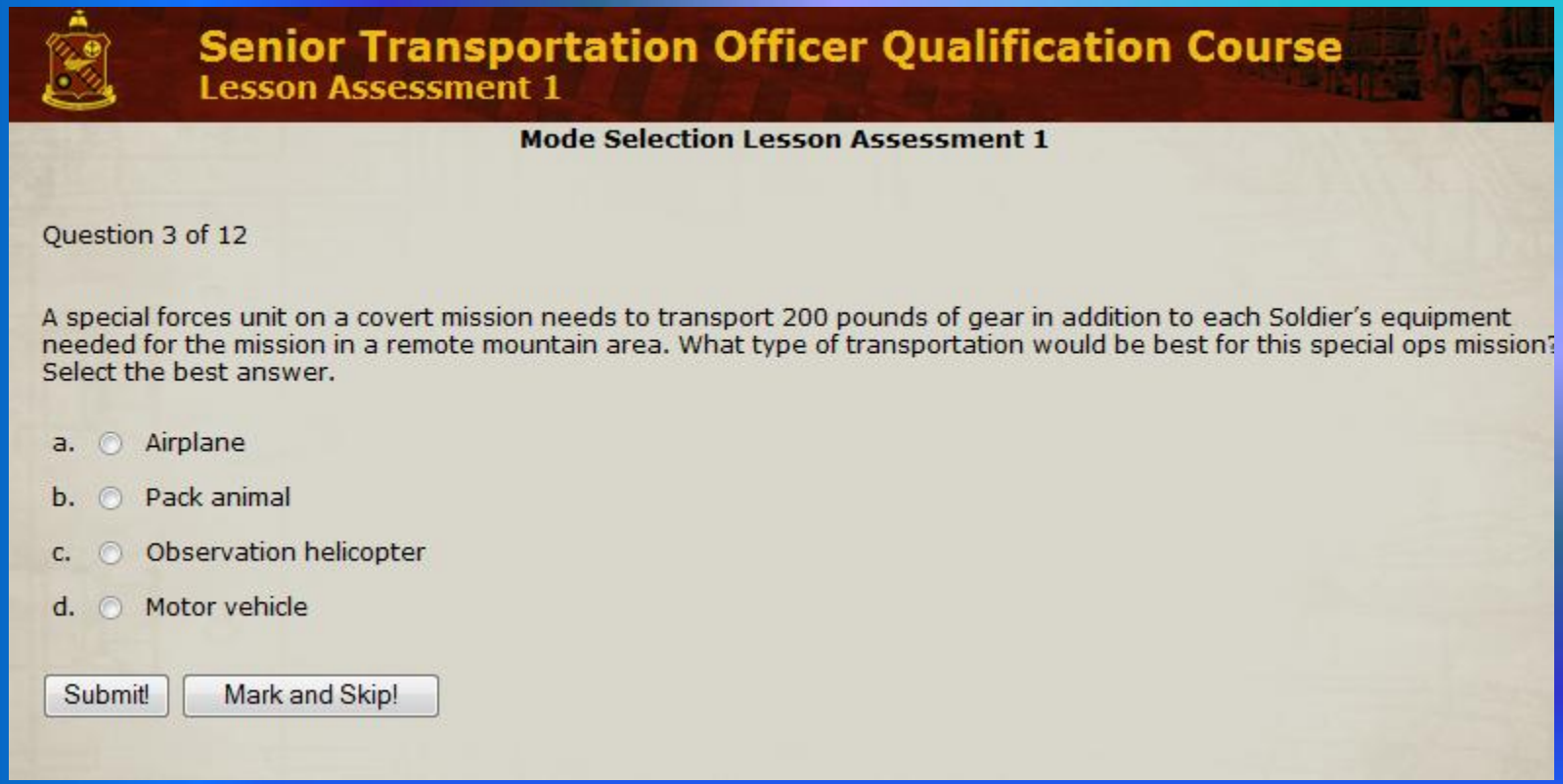
MODE SELECTION



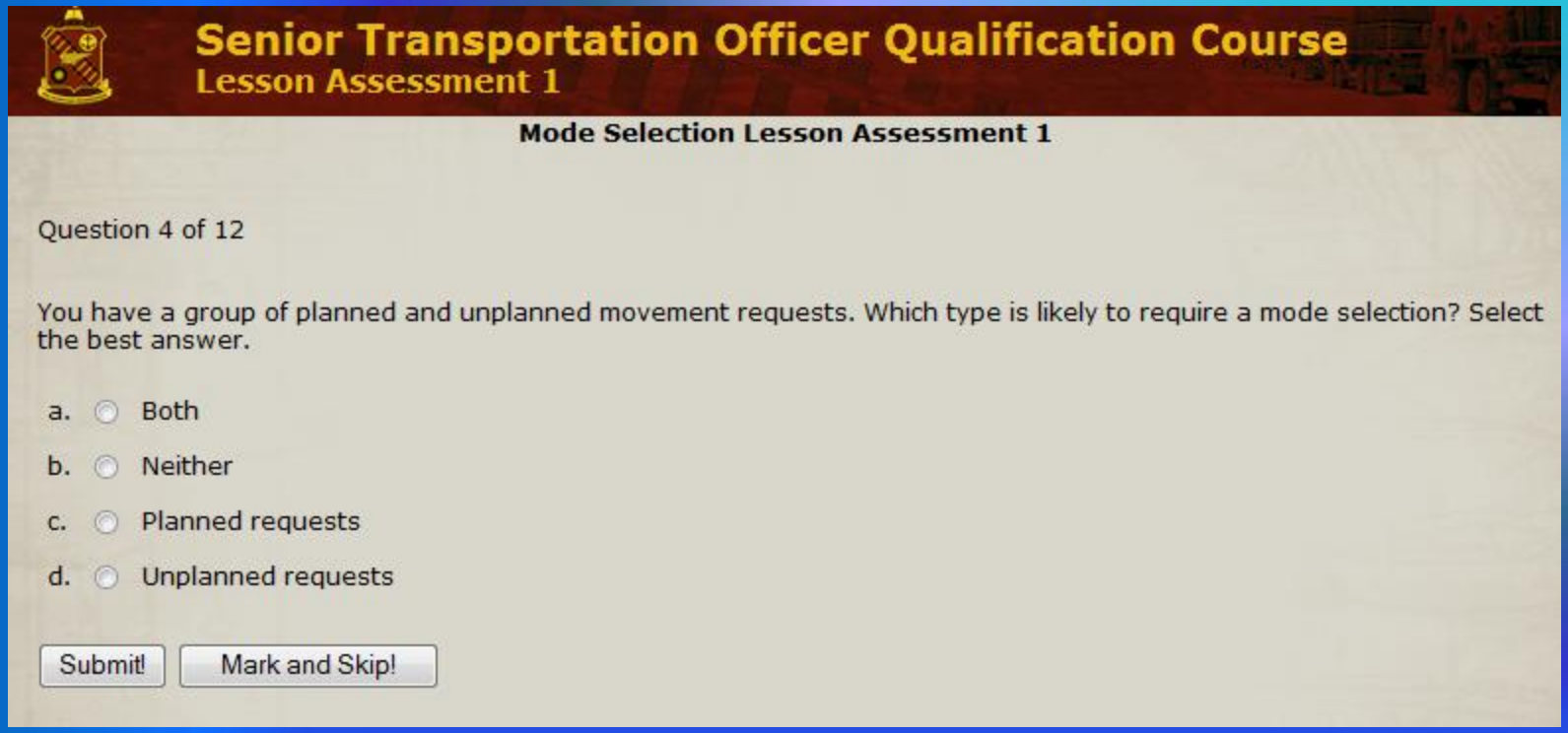
MODE SELECTION



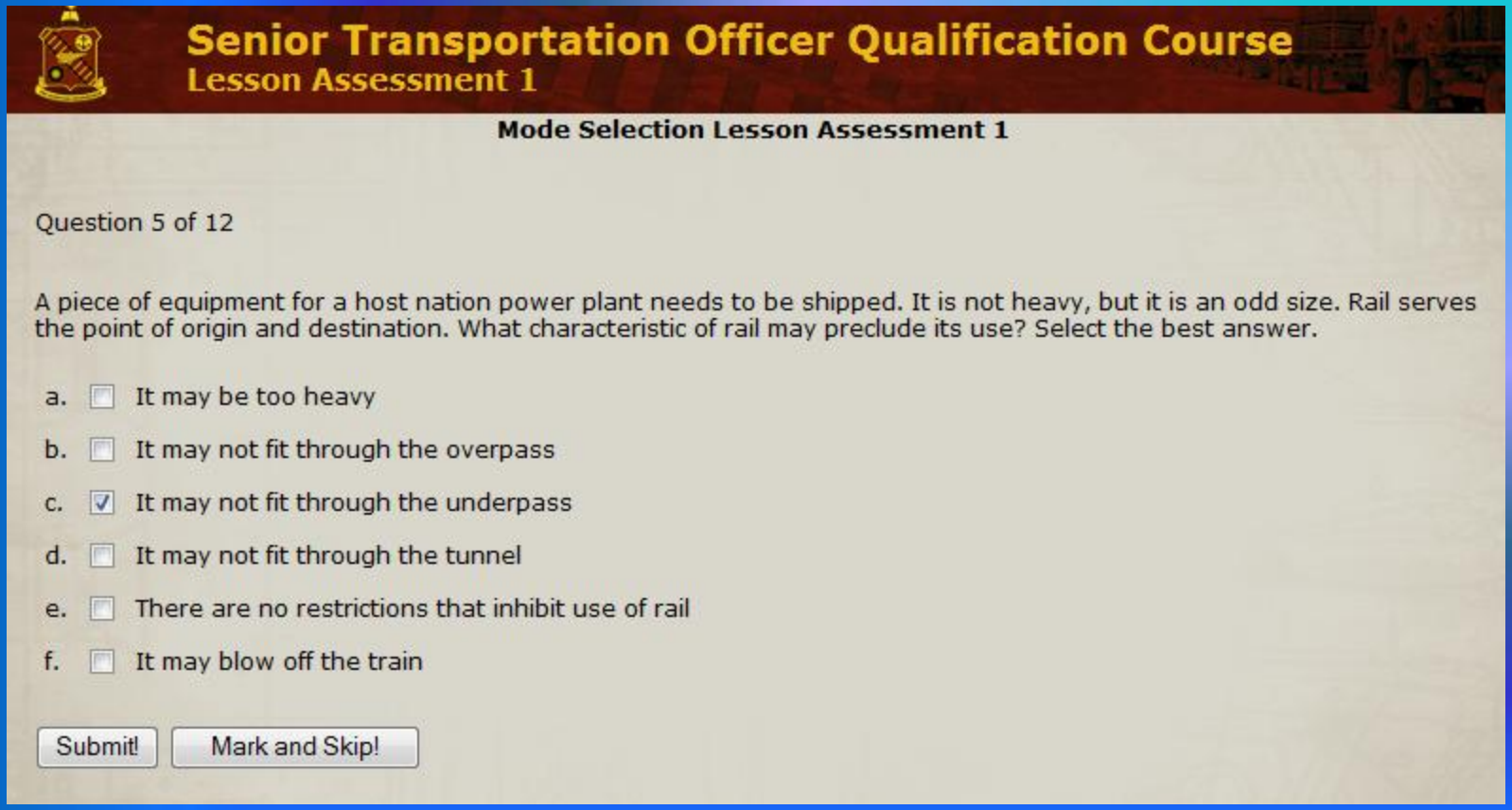
MODE SELECTION



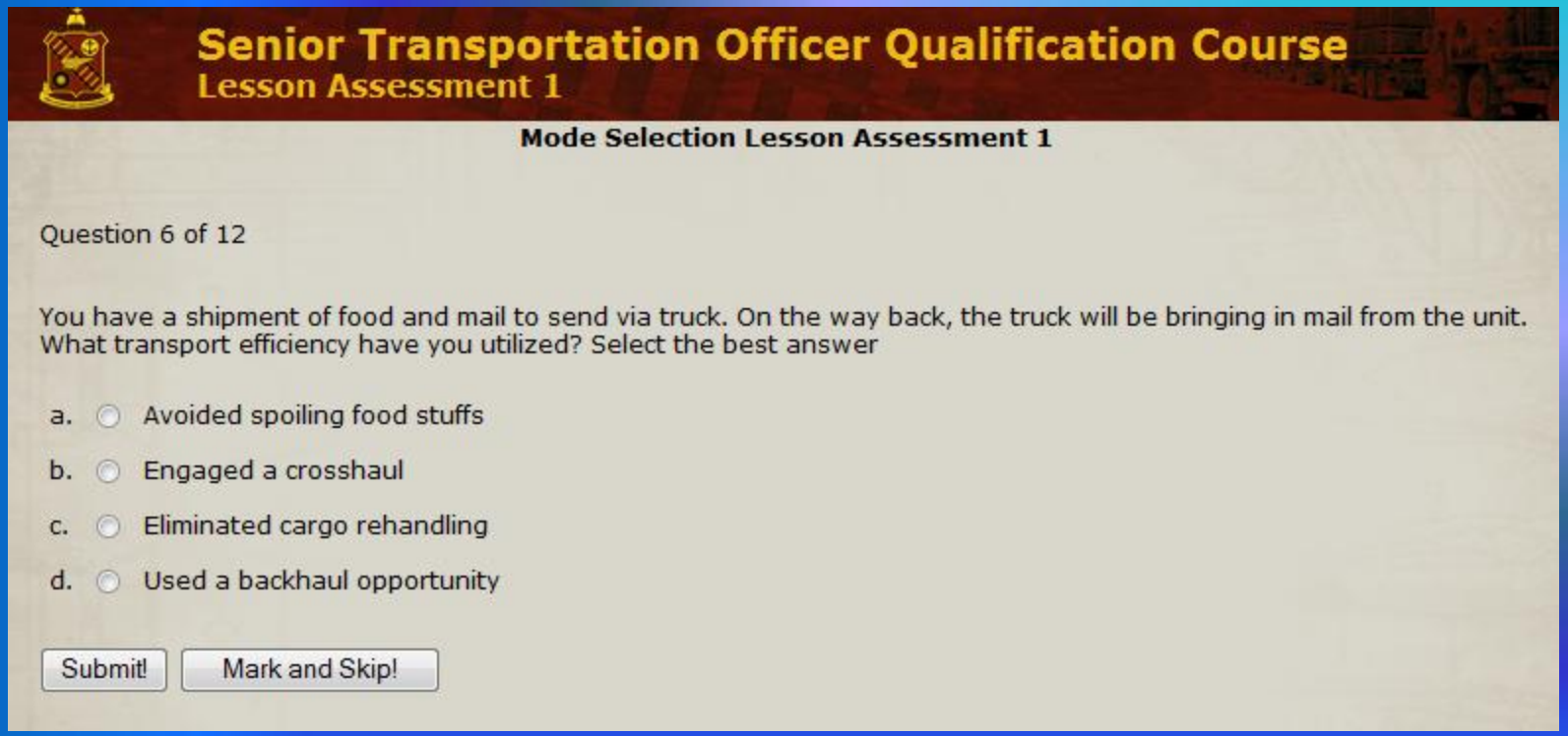
MODE SELECTION



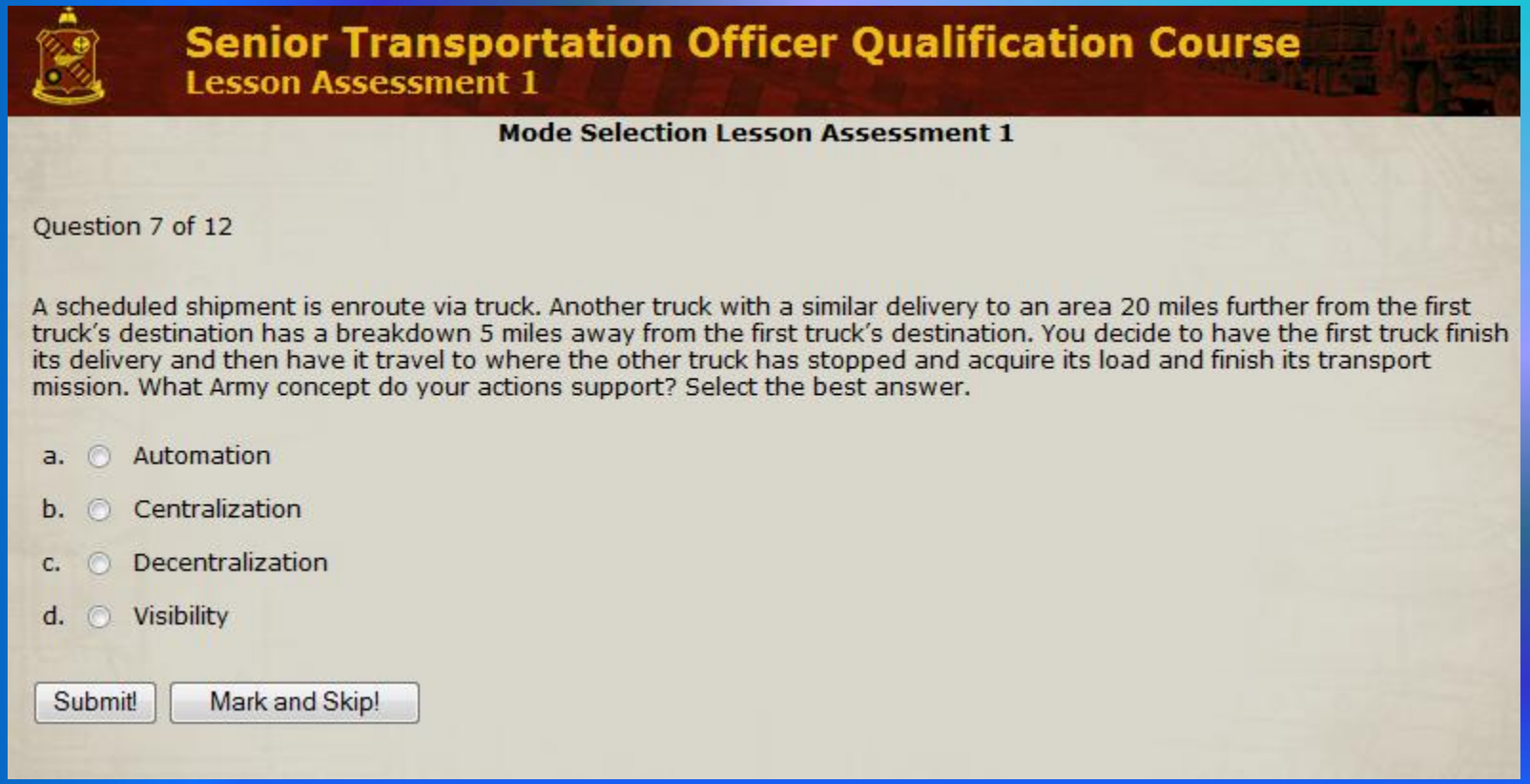
MODE SELECTION



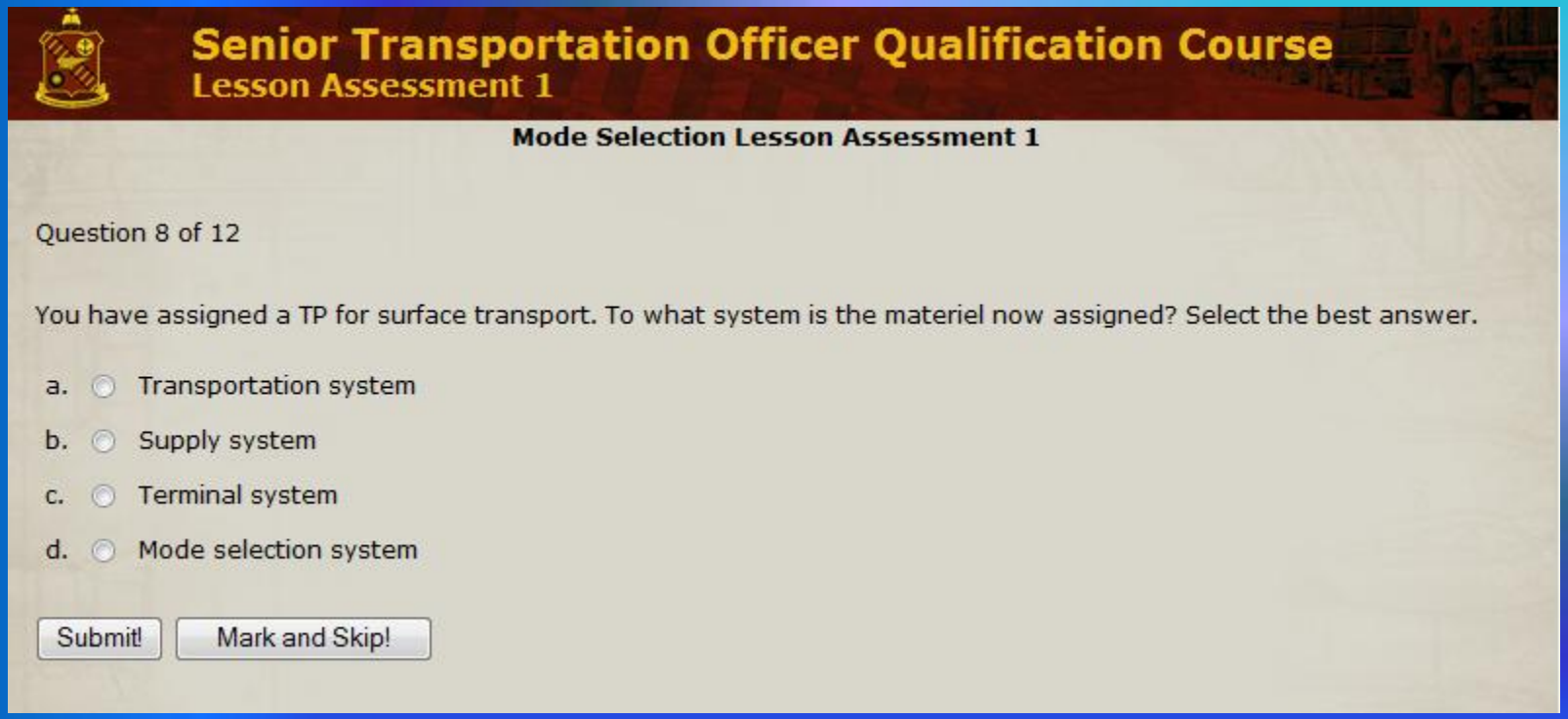
MODE SELECTION



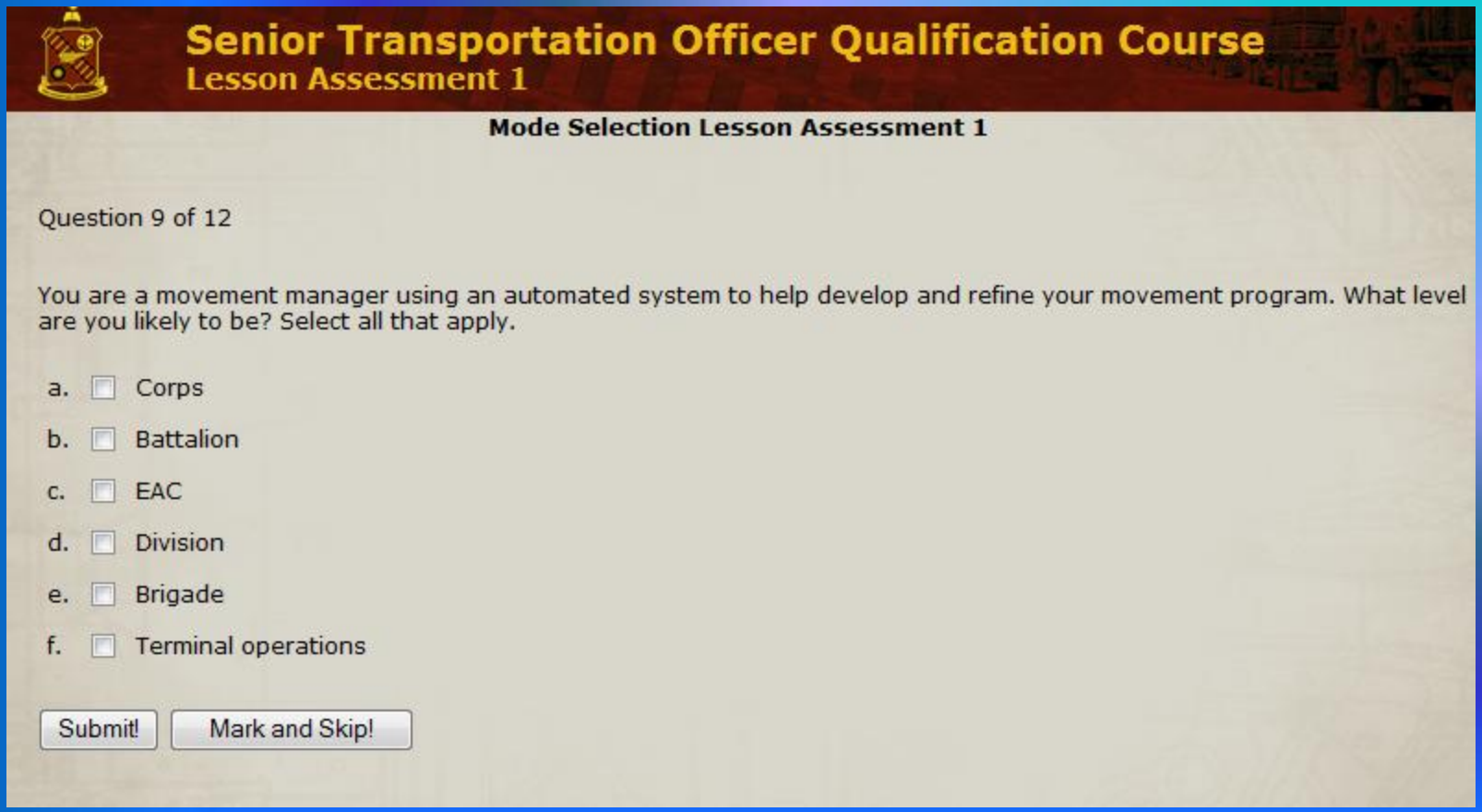
MODE SELECTION



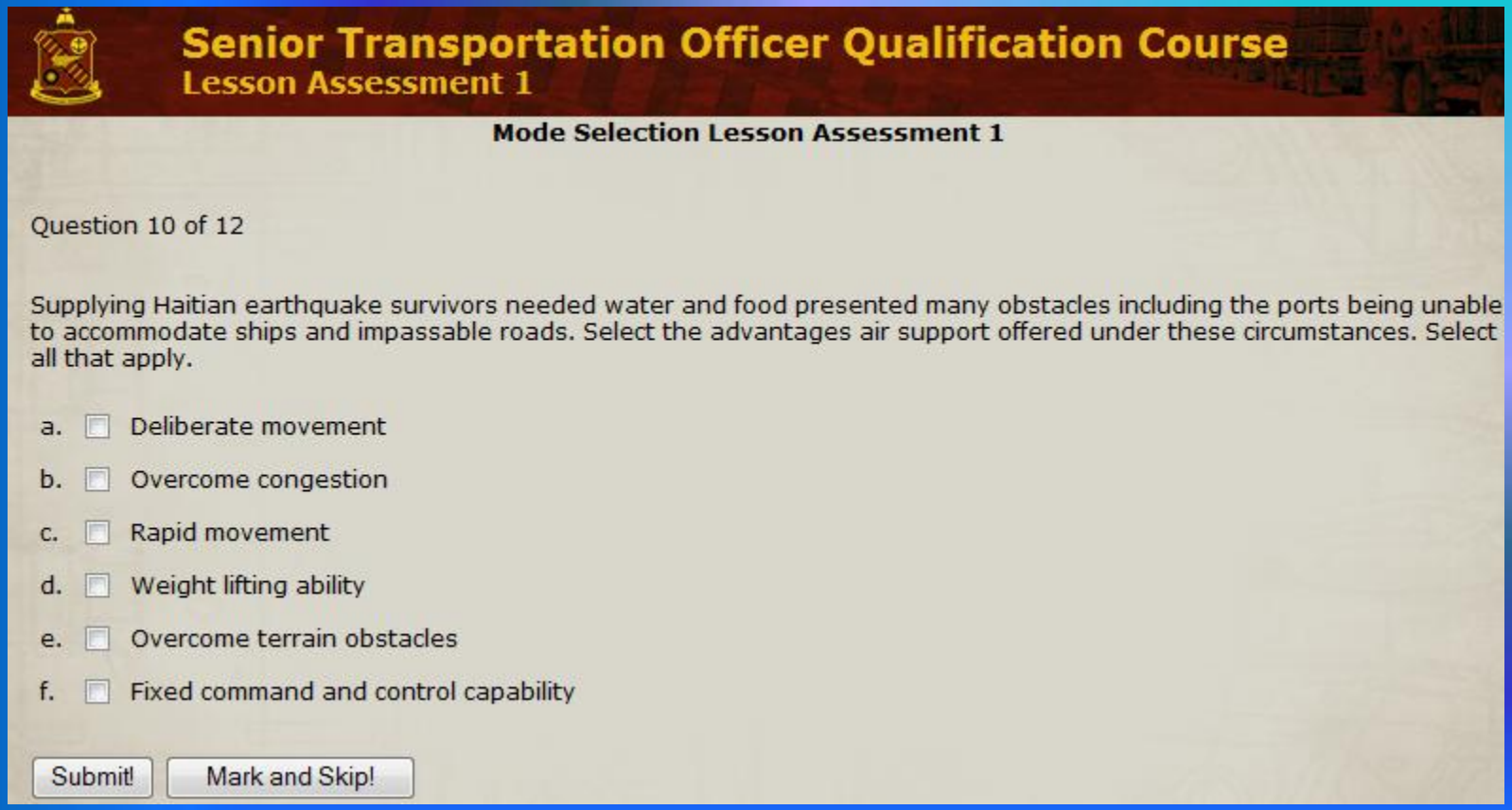
MODE SELECTION



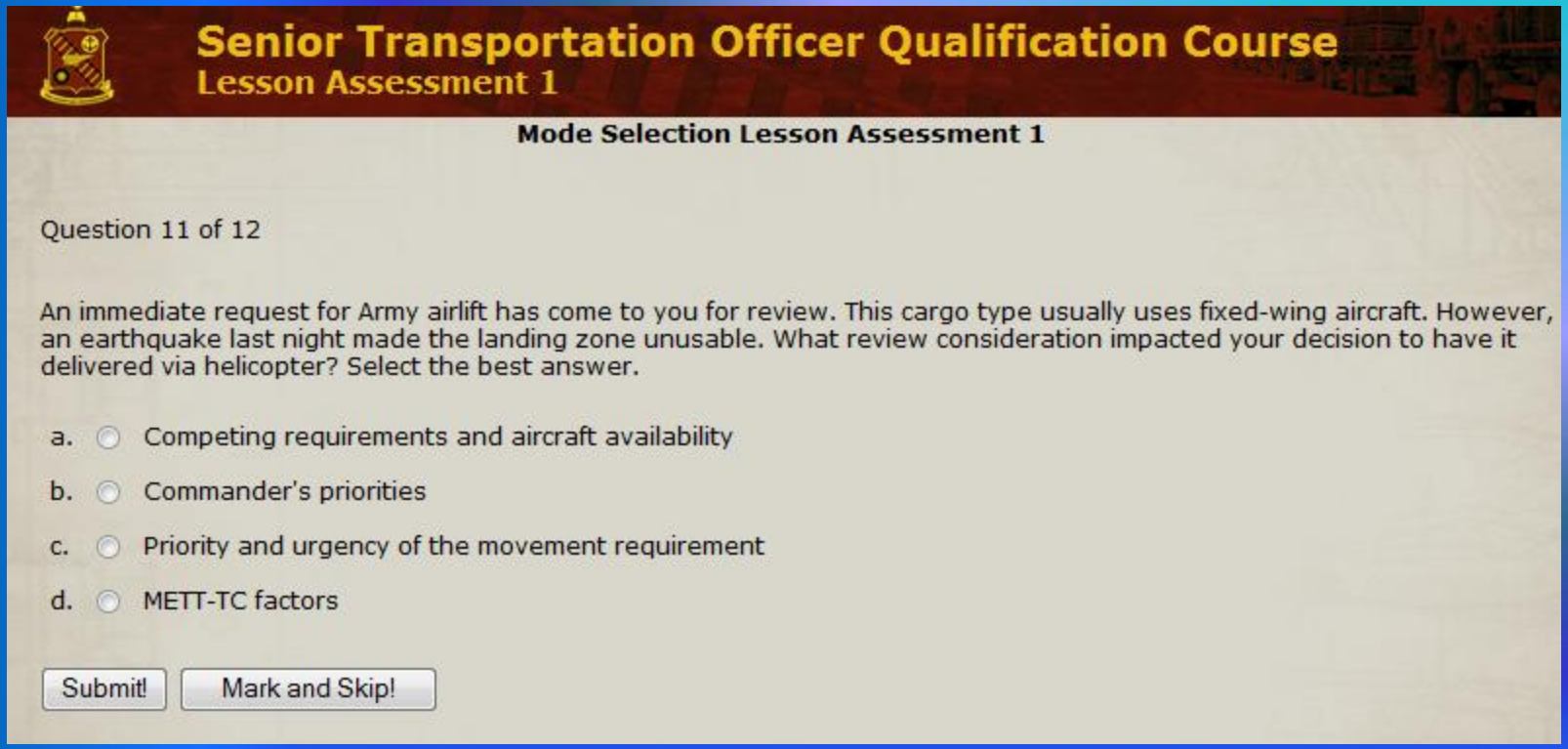
MODE SELECTION



MODE SELECTION



MODE SELECTION



MODE SELECTION